

BROWN UNIVERSITY
LIBRARY
OCT 5 1961

THE AMERICAN BEHAVIORAL SCIENTIST

"the proper use of men and measures"

IN THE NEWS: Persons. Universities and Schools. Programs. Foundations.	2, 35
THE FACTS OF SOCIAL LIFE (updated)	3
GOVERNMENT AND SCIENCE: The Peace Research Institute.	
Fee earning by government scholars. Soviet Research Waste.	4
The Hatred of New Social Science	Alfred de Grazia 5
Chinese Operations Research	13
Simplifying the Discovery of Elites	D. A. Booth and C. R. Adrian 14
Cuba: How Free Inquiry Expired	Jorge Tallet 16
Waste as an Index of Social Pathology	Henry Winthrop 18
ECONOMIC DEVELOPMENT RESEARCH	Ted Gurr 21
THE WORLD INTELLIGENTSIA: Three university atmospheres. Indian social research	23
SOCIAL SCIENCE MACHINERY: Automated Teaching. The Center for Programed Instruction.	26
HUMAN FACTORS ENGINEERING	27
NEW STUDIES IN BEHAVIORAL SCIENCE AND PUBLIC POLICY	28
COMMUNICATIONS RESEARCH: Some Recent Projects at Stanford and Chicago	34
TOPICS AND CRITIQUES: The American Indian Conference	36

On the Cover: Networks of the National Elite (see page 15)

VOL. V

OCTOBER, 1961

NO. 2

75¢ per copy

IN THE NEWS

U. of Michigan projects

Grants totalling over \$44M have been made by three government agencies to U. of Michigan Institute for Social Research. Donald C. Pelz will direct a study of administrative factors affecting scientific performance with \$14M from the U.S. Army Research Office. Stanley E. Seashore will direct a project on determinents of stress in large organizations with a \$13,340 grant from the U.S. Public Health Service. Ronald Lippitt will direct a pilot study of teenage illegitimacy with a grant of \$17M from the U.S. Department of Health, Education and Welfare... Public reaction to the cold war will be studied by U. of Michigan Institute for Social Research with a grant of \$75M from the U.S. Office of Civil and Defense Mobilization. Stephen B. Withey, program director in the U-M Survey Research Center, will direct the project... The National Science Foundation has made a 3-year grant of \$52.7M to U. of Michigan Inst for Social Research to study "Mathematical Problems in Group Dynamics"... A Carnegie Corp. grant of \$75M will support James G. Miller's research into "general systems" in organizations and groups at the Mental Health Research Institute of the U. of Michigan.

Others

Rockefeller F. granted \$200M to U. of California for recently established Center of Economic Research in Athens, Greece; \$165M to U. of Chicago Population Research and Training Center for studies of fertility and population distribution in U.S.; \$100M to Athens Technological Inst. for a 2½-year study of composition, values and

Late developments. Personal research activities. University and school research. Programs. Foundation activities.

needs of large communities that constitute virtual subcities within metropolitan areas... Community Facilities granted \$110M to Yeshiva U. School of Social Work to support training program for psychiatric social workers... Harry H. L. Kitano and his researchers at UCLA, with a \$62.8M National Institute of Mental Health grant, will investigate the relationship to juvenile crime among Japanese-Americans of 1) a change in attitude toward authority, 2) a change in ways of reacting to stress situations, 3) a breakdown of social integration, and 4) the sudden uprooting resulting from the wartime relocation camps... Avalon F. made a \$500M gift to Yale for professorship in history of science... The U. of Chicago has received two contracts totalling over \$271M for research in South Asian languages from the U.S. Department of Health, Education and Welfare... F. for R. on H. Behav. continued its support of Dr. Elihu Katz, U. of Chicago, who is studying the diffusion of innovation. Present plans are for a more integrated exposition of the strategies of research on the diffusion of innovation, with illustrations from selected research studies... Ford F. made \$800M grant to help formulate development plan for Calcutta and \$600M to Institute of Public Administration for program of research based on Calcutta project... Ford F. gave \$500M for program of faculty exchanges between colleges in tropical Africa and U. of Chicago, U. of California (L.A.), Columbia, Northwestern, Yale and M.I.T... Ford F. granted \$1,125M to Joint Council on Economic Education in support of its program to develop "economic literacy".

(Continued on page 35)

THE AMERICAN BEHAVIORAL SCIENTIST is published monthly except July and August at Princeton, N.J. It is written by and for social scientists and associated laymen, and carries accounts of inter-disciplinary research, articles on creativity and social invention, comment on the relations between behavioral scientists and society and government, and broad, annotated listings of new studies. It stresses general theory and operationalism, and aims at establishing the role of behavioral science in the modern world. Contributions and comments are invited.

ADVISORY BOARD

W. GLENN CAMPBELL	FRANCIS KEPPEL
HADLEY CANTRIL	HAROLD D. LASSWELL
STUART CHASE	HERBERT A. SIMON
AUGUST HECKSCHER	WILLIAM L. C. WHEATON

PUBLISHER AND EDITOR

ALFRED DE GRAZIA
 EDITORIAL ASSOCIATES: EARL S. JOHNSON,
 LIVIO C. STECHINI
 BUSINESS: ERIKA K. GURR
 EDITORIAL: TED GURR, T. H. STEVENSON,
 ANDREW JANOS, JULIA MARTINEZ,
 CATHERINE DE GRAZIA

©, 1961, by Metron, Inc., 306 Nassau St., Princeton, N.J. All rights reserved. For permission to reproduce any part of this periodical address The American Behavioral Scientist, P.O. Box 294, Princeton, N.J. Printed at the Hermitage Press, Inc., Trenton, N.J.
 Subscriptions: Individual, 1 year \$5.00; Institutional, 1 year \$7.00.
 Entered as second-class postal matter at Princeton, N.J.

The Facts of Social Life (Updated)

We are not sure about the ultimate fate of this page. It is an inquiry, really, and we should be grateful to any of our readers who would help develop it.

Here are several premises that support its precarious existence:

1) An educated man needs a flow of fact about the social, as well as natural, world.

2) The sources of fact are garbled: he gets too much of non-essentials—of lurid details, of advertising, of fiction and half-truths, and of hot news that is dead cold tomorrow. He gets too little of important facts and especially of trend data.

3) The behavioral sciences are intended to provide a more reliable and valid set of facts on social relations, and to discover new facts.

4) A general magazine of the behavioral sciences would then be a logical vehicle for updating the facts of social life, that is, gathering and reporting the latest discoveries and changes of social fact.

Therefore, the ABS should look out over the age and its tendencies and report briefly any important events, discoveries or statistical indices that convey the truths of men living in this age and their prospects. Unfortunately, although this line of reasoning appeals to us, we can also understand several propositions of a contrary kind:

1) A fact is not worth learning unless a) it is needed, or b) it is amusing. But regarding (a), the facts that are needed by all our audience are innumerable and are not possible to obtain and publish; and (b) ABS does not specialize in amusing facts.

2) Facts are abundantly provided by various media and the ABS would be duplicating them.

3) There is no type of fact that is peculiar to the role of the ABS that is not included already in its reports on

research organizations, methods and projects, or in its annotations of new studies.

4) Moreover, the sorts of social facts that ABS would carry are not essentially different from those contained in other media, or in textbooks of all kinds in all fields of social science.

Here is a sample of some of the facts that might go into such a column each month:

** There will be twice as many *adults* in classes this fall (35-40 millions) than students in high schools and colleges.

** The number of students seeking degrees rose from 14.6% to 23.1% of the college-age group between 1950 and 1960. Total college enrollment in 1960 was 3.6 millions.

** When a neighborhood becomes racially integrated, the odds are 4-to-1 that home values will remain stable or improve.

** World population, growing at a 1.7% rate annually, will reach 3 billions this year.

** In terms of modern mathematics, physics and science, much of the math being taught to elementary and high school students is a dead language.

** Only 10% of the increased productivity per person in the USA since 1900 can properly be assigned to increases in physical capital such as machinery. 90% has come from intangible investments in education, research, technology and social organization.

** White Protestants and Jews have been more successful than Catholics in competition for the better jobs in Detroit.

** Installment debt averages 10% of income in U.S.; homeowners increased from 50% to 60% from 1950-60; 2 of 3 U.S. families are debtors on installment or mortgages.

** There are 400M public libraries in the world, 150M in the Soviet Union. Library of Congress has 11 million books and 25 million assorted documents.

** Automation will displace 325M factory workers, according to 500 manufacturers surveyed (i.e. 2% of the 16 million blue-collar work force).

** TV viewing has levelled off in last decade at 21 hours per week for average grade school pupil, 14 for HS, 20 for parents, 12 for teachers.

** An unknown substance affects the memory and performance of rats injected with the plasma of schizophrenics.

** "We no longer view the brain as merely an enormously complicated telephone switchboard which is passive unless excited from without. The brain is an active organ which exerts considerable control over its own sensory input. The brain is a device for sorting, processing and analyzing information. The brain contains sense organs which respond to states of the internal environment, such as osmotic pressure, temperature, and many others. The brain is a gland which secretes chemical messengers, and it also responds to such messengers, as well as to various types of feedback, both central and peripheral."

Shall we go on with this column? We do not know. Fact, socially speaking, is a strange contextual animal, its meanings clinging to its habitat, its usefulness generally in dispute. Its range is enormously flexible: it may sum up the universe or flicker upon a fleeting event. To agree upon the degrees of importance of different facts requires ultimately a common *Weltanschauung*. But perhaps the magazine can capture specimens sought by some unspoken accord of our readers, and present a sufficiency of them to make the page a worthwhile experience.

Government and Science

The Peace Research Institute

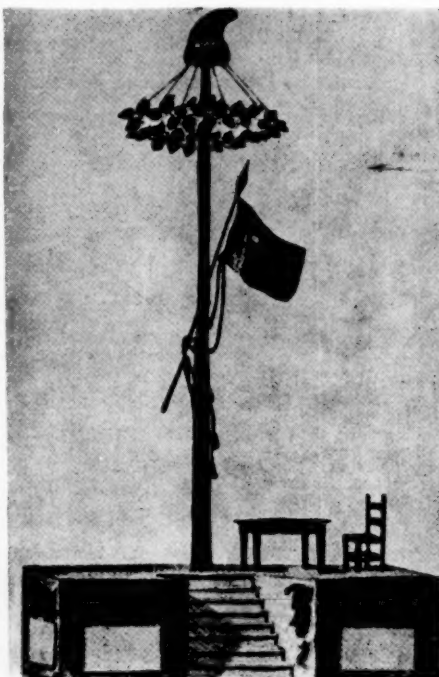
The Berlin crisis and the Soviet resumption of nuclear bomb tests underline the importance of research on peace. In April of this year, the Peace Research Institute, a private, non-profit corporation, was founded to sponsor, support, and promote research on the problems of achieving and maintaining peace. Its offices are at 1329 18th Street, NW in Washington.

Ambassador James J. Wadsworth is President of PRI, and operating head of the organization. The officers of the corporation are Earl D. Osborn, Chairman of the Board of Directors, Arthur Larson, Vice President and General Counsel, Paul Auerswald, Secretary-Treasurer and Executive Assistant to Ambassador Wadsworth. Dr. Donald N. Michael was appointed Director of Research on September 11. A small staff of specialists is planned. A Peace Research Advisory Council will also be formed of representatives from organizations concerned with research in international affairs such as university centers, foundations, business and labor units, professional associations and government research bureaus.

The primary objective of PRI is to assure that fullest use is made of research talents throughout the United States on problems of achieving a peaceful world order, such as: the technical problems of disarmament and inspection, economic factors in disarmament, the strengthening of international law and organizations, decision-making processes in government as they affect peace and war, the development of improved dispute settling mechanisms, and psychological and social factors in peace strategy.

PRI will develop programs of research which identify specific projects bearing on the maintenance of peace. Thus it will continue the work begun by a group of experts under the sponsorship of the Institute for International Order which produced programs of research in five fields identifying more than 450 projects. In developing these programs PRI will maintain a close working relationship with all research centers in the international field to identify research they would be prepared to undertake if they had adequate resources and facilities. PRI will also keep in close touch with government agencies and international organizations to discover their research needs.

PRI will seek to provide the resources and facilities to carry out the research recommended by its Council. It will negotiate contracts with government agencies. It will



A "Tree of Liberty," a late 18th century invention of symbols of the new principles propagated by Bonaparte's army in Italy, suggestive also to modern eyes of the attempt to divorce government and laws from persons, and of the not uncommon union of the despotic hero with the libertarian struggle (cf. Cuba today).

seek grants from foundations and funds from other sources. The basic principle of PRI operations is to use existing research facilities throughout the country to execute research contracts and grants. PRI can use experts from several fields and institutions to execute a project without disturbing their existing institutional affiliations, thereby assuring greatest use of research talent. PRI will be organized to undertake research itself whenever this would be preferable in fulfilling a contract. It will seek to keep all those concerned with international problems informed of research under way and published. For this purpose it will establish a central clearing house and will encourage publications such as *Current Thought on Peace and War*, which is published at Duke University.

New Restraints

*Fee Earning by
Government Scholars*

On July 26, the President issued a code of minimum standards of conduct covering

government employees, which had been drafted by the Civil Service Commission.

Among other rules, it states that employees may not engage in teaching, lecturing, writing or other outside employment that might produce an apparent conflict of interests. If the activity cannot reasonably be interpreted to affect an employee's impartiality, then it may be encouraged. But the activity must not be dependent upon information gained from the employee's position in the government, unless that information is also available to others.

A sceptic might wonder at the enforceability of the new code. A cynic might say that this guarantees that officials will have nothing to say, since they can only say what is known to others. An old liberal will fear further closure of, and monopolies over, government information sources. The *New York Times* thinks the plan is great. It is against crass profiteering.

Soviet Research Waste

The economic journal, *Ekonomicheskaya Gazeta*, reports that about 80% of the 130,000 allegedly new inventions recorded by the Soviet government in the past year were invented or patented earlier, either in the USSR or abroad. Legislative proposals have been introduced to prohibit research directors or new machinery producers from initiating work on a project until a study has been made of the literature and a search of the Patent Library in Moscow, which has six million patents on file. Apparently the personal responsibility for "originality" that U.S. patent and private law enforces is absent in the U.S.S.R. The differences may be psychologically caused, too, because, despite the Soviet conscious insistence upon newness in all things, there is reason to believe that on the unconscious level the American is much more conditioned to seeking out the newer means, the "better mousetrap." Perhaps also USSR officialdom has not gotten over the period of great scarcity of objects when practically everything was "new" in a producer's sense, and therefore confused with the concept of "originality." To put it another way, "originality" only becomes a problem after there is "duplication." By way of consoling the journal, we would add that minor changes in attitude toward the concept of "patentability," that is, "originality," can diminish or augment the number of "inventions" by tens of thousands; maybe it laid down or borrowed too stiff a definition.

The Hatred of New Social Science

by Alfred de Grazia

The Editor of ABS examines the range of attacks against behavioral science and finds them generally wanting in validity and balance. He suggests a typology of the "misocioscientist" and asks for a continued controlled expansion of the social sciences, and improved relations with public policy.

Defending social science is much like defending one's political party. Neither is a Thing. It is scarcely a group of similar things. Indeed one would feel somewhat absurd about defending it if he did not himself often criticize it, thus helping to create an illusion that there is something to argue about.

Yet like the debate over the merits of a political party, an argument about social science has some value. It can isolate the core of meaning in the concept of social science. It can describe and illuminate a number of practices of social scientists that are individually important and susceptible to precise determination and evaluation. It can finally clear away many errors of thought and logic, exposing to the light various ideological phenomena of the age.

This is to be a defense, true, provoked by what seems to be an unusually large number of attacks against the social sciences. Even *Playboy* magazine has gotten into the fray with its last issue, presumably because you cannot be the Compleat Wastrel without a kit of invective against behavioral scientists. A hatred of what social scientists are trying to do seems to be widespread. But our larger purpose here is constructive: What is the scope and limit of social science? What should our attitude be towards it?

The debate about the new social science has not been lucid, and the clash of armies by night is difficult to map. Taking them, not as they present their own arguments, but as their arguments may be analyzed, the attackers of social science offer contentions which may generally be divided



Old Classicists

into four groups: One collection of arguments accuses the social sciences of sundry bad habits. A second series asserts the impossibility of a social science. A third claims that social science is insufficient to provide for the major human wishes. And a fourth argues the undesirability of social science, even if it may be possible. Perhaps only after these several categories have been examined, can some understanding of the types of persons engaged in the attack upon social science be had, and only after that can some statement of what social science is, and what it can offer the world, be set forth.

The Bad Habits Of Social Science

What is not ordinarily appreciated is that a number of accusations directed against the practices of social scientists have little to do with whether the science is possible or useful, but are really extraneous and irrelevant to

these questions. In effect they say simply that social scientists have bad habits and should therefore be disbelieved and dismissed.

The Uncouth Sciences

For instance, in the writings of the misocioscientist, as we shall call those who engage cordially in the assault upon social sciences, a feeling often prevails that the social sciences are coarse and vulgar, that they are uncultured.

Of course, no one expects mathematicians or natural scientists to be cultured in this sense and they are ignored, because here as in many other forms of argument, what oppresses the misocioscientist most is that the social scientist pretends to study man. And so do the misocioscientists. Almost all attacks by natural scientists on the social sciences fall into the category of their being impossible. The natural scientist is not bothered by bad habits of this kind because he may have them himself, nor is he concerned with the undesirable menaces of science, nor even of their insufficiency, because he knows these conditions only too well with regard to his own case.

By coarse and vulgar, the misocioscientist means that social scientists are likely to have too little formal education in the classics, that they do not accord the required courtesies to the words of great men of the past. Since politeness to *Kultur* is found in even the most superficial, callow graduate student of one of the literary departments, the feeling against social scientists becomes almost a class sentiment. Of course, when you locate social scientists who have attended good liberal arts schools or whose fields re-

quires an awareness of the same materials as the critics are talking about, you find a social scientist who is not "coarse and vulgar."

The Use of Jargon

A second bad habit of social scientists is their poor style of writing. We speak here not of the logic or content but of the form, its elegance, the range of vocabulary, and the use of jargon. Science has a style of its own. If the prose communicates precisely what it is supposed to say, the style is good. That it may lack the niceties of expression sometimes found in oratory and literature does no damage to the work as science. In fact to engage in more than a minimum of such niceties would possibly damage its scientific integrity. Poetic license, a true preoccupation with the unique aspect of the subject under consideration, a play upon the meanings of words, a choice of words and styles for their rhythm rather than their logical meaning, are privileges of the poetic writer. As A. R. Heiserman in his new book, *Skelton and Satire*, declares: "Poets have little new to say; to say once again that love is painful, that power is ignorant, that God lives, and to say it movingly, they must constantly freshen and modify the conventions by which their predecessors moved men." In scientific writing, the same practice might be harmful. The need for constant meaning often leads a scientist to use the same words a number of times; a sin by the canons of style is a necessity by the canons of science, where what would elsewhere be regarded as synonyms are unfortunately not synonymous enough.

What the misocioscientist often fails also to appreciate is that the jargon of social science bothers the social scientist almost as much as the literati. In a recent comment on a collection of studies in modern organization theory, this writer declared: "The profuse flowering of terms is disturbing. There is here (as in learning theory in psychology, in political be-

havioral studies, and in other fields of social science) a regrettable coinage of terms to stand for simple facts and categories, resulting in a second language (or as many languages as there are authors writing thus in partial isolation). Several of the writers might try to maintain the principle that, where their facts are not too dissimilar from other people's facts, they should repress the urge to call their facts by a different name, and they should reserve their coinage of terms for the critical phase of theoretical construction. . . . We criticize the medieval philosophers for saying so many different things using the same words, but today our communications suffer because we use constantly different words in order to achieve precise meaning."

Not all social scientists coin new words. Unlike most psychologists, the economists rely often upon common-sense words such as "profit," or "value." But only the most naive will believe that these words need no definition because they are common terms. They are defined in the work, or are used as the writer's clique has become habituated to using them, or they are used badly and criticized justly. The reader recalls more easily a known word such as *customs*, rather than a new word such as *residues* (Pareto), which is an advantage of reissuing old words in scientific treatises. On the other hand, the merit of the jargon is that it does not carry along with it the inevitable connotations worn by words such as "profit," even when those words are scientifically defined as they are used in a work.

The problem of jargon is partly inevitable. Every science must use words precisely and constantly in equivalent senses. And there will be many jargons until a grand philosophy unites science, and provides the various sciences with their key words, their key problems, their principal routines, and their principal classification. This master philosophy of sci-

ence, which would probably have to be founded upon a master philosophy of life and ethics, would set up a greatly desired bridge across the fields of knowledge, always leaving, however, a residual set of problems and facts in every field to be dealt with in the jargon of the field. To rail at jargon in its entirety, is stupid. To limit it, is wise. To recognize the universality of the problem wherever scientific knowledge and practice are present, is fair.

Braggadoccio

The social scientists are supposed to have other bad habits. They are braggarts. Russell Kirk, a traditionalist social philosopher, wrote in *The New York Times* magazine of June 25, 1961 an article of provocative title, "Is Social Science Scientific?" He reports, "A young instructor in sociology declared to me, somewhat defiantly, 'I really believe that we can teach everybody the scientific approach.'" Kirk says that emotionally the representative social scientist is a secular evangelist. Arthur Schlesinger, Jr., a liberal politician and historian, says in "The Statistical Soldier," *Partisan Review*, August 1949, "The champions of 'social science' today have hardly advanced beyond Lester Ward or Comte in the grandiosity of their promises." He speaks of their "portentous and vague hints of mighty wartime achievements" and says they are "fanatical in their zeal and shameless in their claims." Again the critic subordinates what is said and done in the science of society to the mannerisms of the scientist. It is not nice to be enthusiastic or boastful.

The Aggressive Social Scientist

And the social scientists tend to be pushy or aggressive. They "take over." Says Schlesinger, "they persuaded or panicked many university administrations into giving their study top priority." He also says, "They have scored even more brilliant successes

with the foundations." And again he says, "Social science' as a whole is perhaps doing no present harm, except as it engrosses money and energy which might be put more wisely to other uses." And Kirk says: "For the past two decades, the big foundations have poured hundred of millions of dollars into the social sciences. And, recently, the federal government began to subsidize social-science research." The fact that the study of man, by the methods of science, costs one-tenth or perhaps even one-hundredth of what goes into the natural sciences, and that most of our troubles originate in human relations, does not impress the misocioscientist; often, if a humanist, he is too upset himself by the methodological inroads that social science is making into the residual and barren territories that the humanists occupy.

Insecurities

But then again, even while aggressive and all-devouring, social scientists are divided among themselves and are insecure. Kirk writes, "They are split into warring camps, the basis of their authority remains in question, and there lingers a certain public reluctance to grant them the respect they covet." Kirk likes to quote Sorokin against other social scientists. Schlesinger talks of the revolt of the new against the old sociologists, whereby they coin new terms for their disciplines, for example "social relations," in order to be free of the old. And of course every allegation of unscientific behavior made by one scientist against another brings gleeful shouts to some of the critics; never mind that the critics have just roundly trounced one of the accusers on some other grounds. Yet no one stops to think why the different scientists should have to agree with one another, why they should not be divided among themselves, why there should not be many controversies in all the many fields.

Fraud

And not even fraud is beyond possibility among some social scientists. Schlesinger writes, "Too many obvious frauds were at last committed in the name of sociology," and later, "Its practitioners are in the state of alchemy, not of chemistry. Probably that is why they proclaim so loudly that they are on the verge of discovering the Philosopher's Stone." Presumably, finding no other way to get ahead, some social scientists mask themselves with jargon and legerdemain to gain intellectual status. That the same habits may be engaged in by humanists, or natural scientists for that matter, does not seem to occur to the critics.

Imitativeness

Some of the intimations of fraud result from the gap between promise and performance. That we shall talk about later when we discuss the subject of the insufficiency of the social sciences. Other intimations of fraud come from another "bad habit" that social scientists are likely to possess, that they are imitative of natural scientists. Actually there is nothing wrong with imitation in itself. Science is in part an administrative habit and a set of procedures. It belongs to the species of imitative institutions. A scientist follows the steps of other scientists. His hypotheses, it is true, may come from novel sources, and are then subjected to scientific discipline and tested in a number of fields until the limits of their coverage are reached. It is indeed the imitativeness of modern science that has been the key to its vast practical successes. Yet, not satisfied that almost all of life is covered with confusion in this age, the critics of social science claim to detest this imitativeness, which attempts to instill discipline into what have been chaotic areas of human thought.

In fact, the question of imitating the natural sciences is irrelevant and no social scientist should turn from

his task because of artificial or accidental resemblances between his work and the work of natural scientists. After all, the social scientist's work can and must be evaluated in terms of its own rules of procedure and findings, not on extraneous grounds. Insofar as the natural sciences enter into the social sciences, they must come by way of analogy and suggestive hypothesis.

Is Social Science Possible?

The argument over the natural science posture of social science leads directly into the search for substantial and permissible allegations against social science. One of these is that social science in some important sense is impossible. Or, say the critics, man is not an object as stable as those that the natural sciences treat. But let us put aside the latter part of this statement as being irrelevant, and merely address ourselves to the rightful question: Can we systematically understand, describe, predict and control human behavior? Many a critic of social science falls to pieces over this question. On the one hand they will assert that we are in danger of being tyrannized, regimented, and subjected to the horrible world of Orwell's *1984* by the new social science. Almost in the same breath, they claim that man cannot be treated like natural objects but has within him eternal, incorruptible, unpredictable possibilities of choice. Schlesinger concludes an eloquent denunciation of devices of social science with the clause, "the whole happily subsidized by the foundations, carrying to triumphant completion their ancient hope of achieving the bureaucratization of American intellectual life." But then, in scornful reference to the work, *The American Soldier*, which he is reviewing, he reports that "we have a considerable distance to go before resigning ourselves to a regime of total manipulation."

Russell Kirk asserts that "human beings are the least controllable, verifiable, law-obeying and predictable

of subjects. If man were predictable, indeed, he would cease to be truly human. Andrew Hacker, of Cornell University, therefore writes forebodingly about 'the spectre of predictable man'—the man of the future whose coming so many behaviorists view complacently, the man of 'Brave New World.' Such inherently contradictory utterances are not uncommon among the misocioscientists. To understand them requires a depth psychology that penetrates the rigidity of a mind that is embraced in the panic-stricken grip of the soul.

The simple, clean premise, much more defensible, would be that some of the thousands of statements that comprise social science are very true, some not so true, some false, and some irrelevant. Why is it necessary to say that man is unpredictable, or that human relations are indomitable, when history holds millions of illustrations to the contrary, when every minute of all of our waking life depends upon predictability and control of human relations? Every institution of American life would collapse immediately if man's behavior were not predictable or controllable. Indeed man was a social scientist in a theoretical sense long before he was a physical scientist. And he was an applied scientist in both areas from the beginning of time. However, theoretical social science had to develop more *slowly* than natural science. The psychological obstacles to creating a systematic scientific corpus to be called social science happen to be very great and postpone, perhaps indefinitely, achieving the nice formality of statement that may be lent to the natural-science operations of mankind. I have elaborated this point in the *Administrative Science Quarterly* of December 1960 and March 1961 under the title, "The Science and Values of Administration."

De Natura and de Facto Possibility

There are two major bodies of argument against the possibility of a pure social science, meaning by pure social science simple *validated statements about human relations*. The one argues *de natura* against there being a pure science, the other *de facto*. The first attempts to demonstrate that man is by nature unpredictable and that laws of human relations cannot be devised, the second school declares that such laws are theoretically, that is, naturally, possible, but they cannot be actually derived because of the prejudices of the observer and his involvement in the things he is observing. In recent years, the second school has superseded the first.

If we accept the statement "Few poor men have ever known how the rich live," we would offend the *de natura* school that maintains we could never validate this statement nor define our terms, nor enter into the mind of the poor and the ways of the rich; therefore we also could not make a prediction, to wit, that the poor of tomorrow will not know how the rich of tomorrow live. The *de facto* school might say that we could discover this statement, but if we did discover it, we would not be able to put it correctly, because we would be either rich or poor, and therefore incapable of objectively putting forward a statement about the relation.

Such sober and erudite critics of social science as Leo Strauss have taken up a *de facto* position in criticizing, for example, the ideas of Max Weber concerning the possibility of objective knowledge of society. For instance, Strauss in his book, *Natural Right and History*, denies that fact and preference can be separated and demands therefore that social science be, in our language, a single policy science supplementing the natural law. I have commented upon this problem in "Fact and Value in Teach-

ing," ABS, January 1960, and will deal with it here only by way of stating a proposition about such critics. These critics wish to say, really, that a constant danger in the study of man's relations is subjectivity, just as it is in other areas of science, and there will always be discoverable a residue of distorted reality in the observations and propositions of social scientists. But the bulk of social science, moving forward as it does by the use of panels of authorities and judges, rather than by reliance upon the single observer and theorist, can overcome the effect of the principle of subjectivity to the point where it achieves what may be called objectivity, or the collective subjectivity of mankind, which, so far as we know, is the ultimate objectivity of which man is capable in any area of science.

Applied Science

If pure science is to be made useful in human affairs, it must be applied. The corpus of applied science is simply a pure scientific statement attached to a goal: *In order to achieve "A," do "X"; "To get more voters, keep the polls open longer."* Obviously applied social science is every bit as possible as pure social science.

Insufficiency of the Study of Man

Triviality

Indeed what the critics usually mean when they talk about the impossibility of social science, except for certain absurd arguments about the unpredictability of human nature (which are contradicted by everyday experience) and the impossibility of objectivity (which I have already addressed myself to) is the insufficiency of social science to do everything that people would like to have done with man. Again it is strange, and contradictory, that some of the people who are most worried about

the undesirable effects of social science, are also most prone to show how commonplace and trivial are the propositions of social science, both pure and applied. They do not bother to look into the hundreds of thousands of studies and articles turned out in natural science journals and books annually; the triviality of many of these may be attested to by other natural scientists, but these, not feeling guilty about the problem, no not worry about it nor make it Nemesis.

Nor do the critics ask themselves what they should think of the many years of work that Charles Darwin put into observing and describing the habits of a worm. Nor do they remember that Matthew Arnold said of Darwin in 1869, "Why it's all in Lucretius." And when a scientist replied: "Yes! Lucretius guessed what Darwin proved," Arnold retorted, "Ah! That only shows how much greater Lucretius really was—for he divined a truth, which Darwin spent a life of labor in groping for."

It would seem that the critics must have their personal problems solved by social science, or else it does not exist. It is as if they had said: "Unless we can rotate the moon so that we may see both sides without disturbing its arrangement in relation to the earth, natural science does not exist." Or "Unless we can assure everyone that the sun will not ultimately burn out, we have no right to speak of the achievements of science." Nor, of course, do they take into account the fact that not every humanist is a Plato, and for sheer inconsequentiality, not to mention inaccuracy and incomprehensibility, the mass of materials on literary subjects that infests our libraries cannot find its match either in the social or the physical sciences.

Triviality is as pervasive and perennial as sin. A constant unending struggle must be maintained against it in all areas of life, including the social sciences. But to abolish triviality would be to abolish science as we know it, for the history of science

abounds in instances of the trivial becoming the important either immediately or in the long run, and the practices of scientists require an exercise of their logic upon the concrete, and the trivial are often joined by the bridge of tangibility and understandability. Furthermore society does not necessarily favor the important over the trivial, for the important tends to be controversial.

Indeed one should be most restrained in judging alleged triviality harshly. Why is it trivial to study the number of students who should normally occupy a fourth-grade schoolteacher's attention as opposed to the number who may normally occupy the attention of a fifth-grade



SYLLOGISM—Arriving at a preconceived idea can be a good trick.

That this illustration might be carried with Kirk's article by the New York Times, an enlightened newspaper, indicates how wide must be the gulf that separates public understanding of the work of behavioral scientists from their actual ways of working.

teacher, but is not trivial to study whether the introduction of a certain chemical into the process of making nylon stockings may cause the stocking to wear a bit longer or wash less well? Yet the serious, prolonged, and expensive researches that a huge company may engage in with respect to the last are never questioned, except by an occasional stockholder who questions only their profitability, whereas many reproaches are directed at the educational type of study. It is at least possible in many cases that the epithet, "trivial" means: "You are doing something that I feel consciously or unconsciously to be threatening."

Other "Insufficiencies" Of Social Science

Aside from these considerations, social science propositions are often insufficient to satisfy a particular need because of the greatly complicated and varying nature of a specific human relation to which they must be applied. Any one of a hundred factors has a fair likelihood of varying in the circumstances, something that does not happen in most of the areas of applied natural science. For instance, insofar as the construction of a bridge is concerned, many things are considered, but few of them vary; but many things must be considered and most of them have some likelihood of varying, so far as the organizing of a group of people to accomplish a simple task is concerned. This does not mean that the variability of all of these things could not be accounted for, but that it would be impossible normally to state them all except in a complete report prepared in advance of each situation. For if one had to allow for the unending variance of all the factors inherent in a situation discussed, for example, in a textbook on administration, the book would become impossibly overburdened with repetition and detail. So it is left to the individual human applicator of social science to make most of the adjustments "by ear" as the many factors vary in the situation on which he is working, whereas the engineer may operate with much more confidence and go much more by the book.

Noncommittal Scientists

Now finally the social scientist may be regarded as trivial and inadequate for the task at hand because, when trying to be objective and to state the full set of conditions that determine a particular case, he will be reluctant to commit himself regarding the evaluation of the sides involved. He may consider it his obligation as a scientist to be neutral. Many a critic of social sciences, including some in

the professions themselves, lack intellectual sphincter control. They want to be told what is good and what is bad immediately and without fail. They think: "What kind of a science is it, if it does not tell us what we should do?" Even when they know better and praise scientific objectivity, they harbor resentment and displace it by accusations of triviality. Those social scientists who succumb and let their style be infiltrated by pejoratives and exhortations, or who, when pressed, emit recommendations prematurely, are roundly belabored by their more restrained colleagues, with good reason, and by their antagonists in the outside world.

The Undesirability Of Behavioral Science

Indeed it has become a matter of course for social science to be abused by the public both for not taking sides and for taking sides. As it has become more self-conscious and more effective, that is, more realizable as pure and applied science, and more sufficient unto its objectives, the question of its desirability as science has taken on larger stature. Some say it is evil to know man, even though it may be well to know the lesser animals and the natural world. Others say that whereas it may be good to *know* man, it is evil to *apply* one's knowledge of man, for that implies the manipulation of man, an evil greater than any other. And some say the danger comes from the evil of applying knowledge of man *on a large scale*. Still others say that it is bad to let social scientists control the destiny of men, either because the social scientists are bad in themselves, or because they are the pawns, willingly or unwillingly, of evil forces in society.

The Evil of Knowing

The doctrine that it is evil to know man is an ancient religious superstition that today has lost its grip, except on a few pessimistic thinkers

who perhaps have more foresight than most of us. What they usually mean, however, is that they know man all too well, and their advice to all and sundry is not to know man any more and to turn our backs on human problems. In its more modern guise, the doctrine takes the form: "We know that man is unpredictable and therefore it is evil to preach that he is predictable." In another modern guise, it is an argument that we have already dealt with, the argument against the insufficiency of social science. That is: "We may think we know something, but we never really know anything, and human beings are terribly complex and mysterious, so we had just as well know nothing."

The Impossibility Of Non-Control

There is no scientific argument to be directed against the belief that it is evil to apply one's knowledge of man for his control. Here all that can be said is of a practical nature. Man *will* be controlled by himself and by others. In whose name and toward what goals shall this control be exercised? Even if we abolished controls of all kinds over all adults, we should still have the problem of educating, that is, controlling youth to live in a society where no controls would be exercised. But this is fantastic.

Nor should we dally with the question of how much control should be exercised, or whether certain controls of science are good but large-scale controls are bad. These are questions for political ethics, vastly important, but beyond our purview here. Sufficient to say that we might take appropriate measures, using the instruments of state power, to repress scientific development along certain lines that tend to uncover certain kinds of controls, and focus upon other lines that would promote the discovery of controls that we would like. Thus it is that many social scientists, as even Russell Kirk would

admit in a backhanded sort of way, have become preoccupied with the development and discovery of democratic types of control, as opposed to the science of totalitarianism.

Social Scientists as Devils

But then a problem confronts us which cannot be circumvented. The critics of social science are antagonistic to the notion that social scientists as a group (that they are really a loose aggregate is usually forgotten) would exercise social control, and maintain that social scientists are an undesirable controlling type. By contrast to the sterling qualities possessed by other segments of the population, such as businessmen, military leaders, churchmen, humanists, natural scientists, or politicians, social scientists are peculiarly unfit to exercise power. Inasmuch as it would be difficult to demonstrate this proposition by thoroughgoing, systematic study, the argument usually stops at the point where social scientists are regarded as impractical, liberal, or socialists.

Are They All Radicals?

A member of *The New York Times Magazine* staff informed this writer that a major reason for publishing Russell Kirk's article on social science was his known conservatism, for the magazine felt that it was publishing too many liberal writers. (I suppose that is why one encounters the word of Robert Moses so often in the magazine.) The choice reflected badly upon the magazine, but the decision is illuminating, for doubtless in a great many people's minds, social science is associated with socialism, and anti-social science with conservatism. The bitter attacks against the new social science by Arthur Schlesinger, Jr., a "new liberal," and C. Wright Mills, more a "socialist" than anything else, apparently have made little impression upon this stereotype. Nor do Kirk and others who share this feeling about the radicalism of social science

seem to be aware of the fact that some of the outstanding figures of social science have been supporters of the *status quo* or reactionaries. Pareto, Mosca, Michels, Simmel, Sumner, and Spencer may be cited.

Social Scientists As Marginal Men

Russell Kirk claims that social scientists regard religious convictions as unscientific or irrational and look upon political conservatives as ignorant bigots. And then he quotes Raymond Aron, the French sociologist, to support his claim, that the typical American sociologist is liberal in part because "many stem from semi-marginal groups: first-generation Americans, Jews and natives of Central Europe," who "are more common among American sociologists than Back-Bay Bostonians." This poor-boy type of sociology is factually ludicrous, and laughable also for exemplifying how intellectuals like to call other intellectuals marginal. Kirk of course is not a marginal character, for he practices being a country squire on a Michigan farm and likes to live physically as well as mentally among the ruins of Scotch castles and Sicilian temples.

Social Scientists Enough For All Parties

Kirk believes that radicalism is served. But C. Wright Mills believes that conservatism is served. So he argues in the *Sociological Imagination*. Neither is correct though they have their grains of truth, as always. Ideologically, as Paul Lazarsfeld has shown, there is considerable variance of attitude among subcategories of academicians. I should say also that it was about time that we administer a questionnaire (if I may be pardoned the expression) to a goodly sample of American social scientists, to find out whom they are serving in a direct vocational sense, including the magazines they write for and the companies they consult for.

Meanwhile, we may surmise that there is an ample supply of social scientists willing to apply their skills for practically any cause, and that there is little likelihood of social scientists becoming the ruling class of the new order. The giant corporations and the military forces can, as Mills asserts, find an ample supply of applied social scientists, but so can the CIO-AFL, the Socialist Party, the American Friends Service Committee and the NAACP. So can the Republicans, and the Democrats. And when one considers the quality of personnel who today must make decisions that should be based upon intelligence and systematic foresight, in the nation and its many groups, one may well hope that the supply of social scientists is greatly increased through the educational system, and that they be put to ever more use in the establishments of government, business, and politics.

Ignoring Scientists' Self-Criticism

Faithful readers of the ABS will have received a social scientist's version of all the criticisms that have been voiced by the misocioscientist, presented, however, in the perspective of a constructive social science. It is noteworthy that Kirk, while citing at least two passages from the ABS, failed to indicate that the ABS was the source not only of some of the social science that he dislikes or misunderstands, but also of constant and telling criticism along many of the lines that he broached. It is often the bane of the reformer to find his victim already in a state of repentance and reconstruction. The opposition must put the axe to the social scientists, all reason to the contrary notwithstanding.

Typology of Misocioscientists

Whence comes this hatred of the new social science? Most attempts by social scientists to achieve a clear pic-

ture of types of character and personality in different orders of life have fallen short of their mark. The prolonged studies that created "the authoritarian character" reveal the problem. Each person, while true to a central configuration of traits, will usually have two, three, or more different sublevels or overlapping clusters of traits belonging properly to other configurations. So any attempt without great study to place into categories the characters of those who habitually have flailed at social science will not be satisfactory. Yet we would see perhaps as many as six different types who satisfy major components of their character by attacking social science.

Believers in Absolute Good

The scholarly type presented by Leo Strauss, Hallowell, and sundry historians, political scientists, or philosophers, holds to a natural law position that somehow seems to him to destroy the possibility of social science. He maintains on the one hand the solidity of reality. What is, exists. What is, ought to be. Now it seems to this writer that there is little difference between the natural law social scientist and the positivistic one except that the natural law scholar ascribes ethical compulsion to the fundamentals of existence and human behavior. This, to the new social scientist, seems scientifically unacceptable, but more than that, apt to lead to as much trouble as the operational positivism of the social scientists. For the natural law position becomes often: "What is, ain't, but ought to be."

The Reformer-Evangelist

A second type of anti-social scientist is represented by C. Wright Mills and Bishop Sheen. This may be called the reformer-evangelist type, who is impatient with the insufficiencies of social science to solve all human problems, accuses it of triviality, fears that it may be converted to un-

desirable ends, and wish it to be their personal political social science, working smoothly and efficiently in the "right hands."

Competitive Power-Type

A third type of misocioscientist is the competitive, rationalistic power-type. Schlesinger might be classified here, along with the typical newspaper publisher. They feel that power in practical affairs may be slipping away from the traditional practitioners of human science if the newer, more disciplined workers take over leading positions and are responsible for the authoritative product of the discipline. Objectivity is a fool's ploy for such as these. To them the question is, as it is to Machiavelli, not who is right, but who has the power.

Traditional Conservatives

Yet another type is the traditional conservative, as exemplified by Russell Kirk. Here social scientists are sensed as a kind of threatening new minority who will explode what there is of good in the past along with what is bad. These are most prone to talk about the bad habits of social scientists, the obverse of their practice of talking about the good habits of old. Edmund Burke, after all, wisely defended tradition simply on grounds that it was old, not that it was reasonable, and hated the Enlightenment and the new social scientists of England of the time, because they sought to destroy the old institutions and traditions.

Humanist-Contemplative

Then there is the humanist-contemplative, who dislikes social scientists because they seem to be going somewhere and going in somewhat of a hurry. They are defenders of history for history's sake, or art for art's sake, of nothing for the sake of doing nothing. Sebastian de Grazia, who may be placed theoretically, if not practically, within this rubric, has shown that the Greek and Roman philosophers expressed this non-in-

strumental point of view quite well. A thing once discovered loses its charm; to pursue it through all the corridors of its theoretical ramifications and practical applications is pointless.

Rational-Conservatives

Finally there is what might be called the rational-conservatives, who criticize applied social science because of its incapacity to achieve its objectives. In this group may be numbered several of the most productive social scientists. They gravely warn of the impossibility of man's acquiring a true knowledge of consequences of his planned actions. Here we would have Mosca, Pareto, Mises, Michels, and Hayek.

The Scope and Limits Of Human Science

Facing this gamut of critics, the social scientist can offer the world and man substantial evidence that much of what the critics say is wrong or at least nondefinitive of his role, and that there is a use and virtue in his function. Social science is engaged continually in the statement and verification of thousands of propositions, some of which are commonplace and trivial, but some of which are important, and social science has arrived at a position today where there is no area of human relations that cannot boast of a collection of them.

Beyond the principles—detailed or large as they may be, unverified or verified, useless or useful—lies the large area in which social science has contributed insight to the modern world. After a hundred years of the systematic development of the social sciences, a great many professional and ordinary people are in an enlarged and well-equipped position to understand what may be at the root of any human situation that they encounter. It is impossible for many today living under these circumstances to appreciate the paucity of

hypotheses and the dearth of suggestions and insights that have been afforded most people in most ages of history. One of the leaders in the development of the new social science, Harold D. Lasswell, who has contributed salient techniques and instruments to several social sciences, has indeed asserted on occasion that the principal utility of the social sciences rests in proliferating the imagination of its students.

This enormous sensing ability and capacity has been imparted to the human race as a by-product of the mechanical old-fashioned scientific method of which the critics make much and which seems often to be stripped to the point of barrenness. However, it is perhaps a scientific achievement of greater value and beauty, like a delicious beefsteak mushroom growing from a log. It is put to use daily in myriad instances both for understanding the universe, which is perhaps the best subjective meaning of pure science, and in attacking the innumerable problems that confront man today, which is the core meaning of the concept of applied science. Moreover going back to a more mechanistic, tangible level, no day goes by without the application of social science to new groups, new areas, new organizations, new operations.

It is true that, while contributing its insight and instruments, affording countless satisfactions of a material sort, and arranging many adjustments of conflicts, social science has not been a constructive unifying factor in the ethics of the new society. On the contrary, and to a large extent unconsciously, it has contributed somewhat to the disorganization of society in the process of analyzing it. Yet it is scarcely the fault of the social scientist that nobody in society was performing a compensatory function in the 19th or 20th centuries. Social science may have bred upon the chaos, but it certainly could have done very little about reordering it.

Here again is the dilemma of policy science. As John Dewey and Harold Lasswell have put it, the social scientists of the new age, without losing their integrity and ability as scientists, must somehow work on policy-making problems to a much greater extent than heretofore. Although they are not the best judges of themselves, and though they cannot as scientists judge men's ends, the social scientists should be peculiarly fitted by training, experience and mentality to the posing and staffing of solutions to the great problems of divine order, bread, peace, and charity that remain with modern man.

Chinese Operations Research

AN ACCOUNT OF DRAMATIC SOCIAL INNOVATION

(The following excerpts give the flavor of an article on "Practical Application and Theoretical Discussion of Operations Research at Ch'u-Fou Normal College, Shantung," by Wang Chien-Liu, in Jen-min Jih-Pao (People's Daily), Peiping, July 29, 1960, p. 4. The translation was made by U.S. Publications Research Service, picked up by Thomas Saaty of the Office of Naval Research, and printed in part by Joseph F. McCloskey in Operations Research, May-June, 1961, Vol. 9, #3, pp. 419-421. For those who have been habituated to thinking of China as a vast, impenetrable, and unchanging mass, the speed and vigor of the events recorded in the article, and touched upon in these paragraphs, must be astonishing.)

To rectify the situation of insufficient transport strength against the flying development in industrial and agricultural production (we found continuously occurring on every transport line empty vehicles crossing each other and transport made in roundabout ways. One day, along the half kilometer road between the canal wharf and the Mei-chien Coal Construction Company alone, there were 160 empty vehicles crossing each other in the opposite direction) the Party Committee of the Ch'u-Fou Normal College decided to begin from the study and application of the science of 'linear planning.' At that time, linear planning had only been introduced in the country for a short time, and the teachers gave lessons to the students

with the only *Linear Planning Manual* available domestically, after which they all embarked on their projects. A group of 60 some sophomore students and their teacher arrived at the communications bureau, automobile transport group, and the automobile repair plant of the Chi-ning Special Office ('Chuan-shu').

The teacher and the students traveled almost the entire Ko-che and Chi-ning areas on motor vehicles along every highway to check cargo yards, sources of cargoes, their routing, and loading and unloading conditions, and they humbly solicited information from workers. After 20 some days they found 30 some problems in transportation such as the 'cross-flow' of empty vehicles and delays in loading and unloading. Later, in the transfer of goods and short-haul transport, they also found such irrational phenomena as the same kinds of goods being transported in the opposite directions and goods being transported 'along the limbs of a bow rather than its bowstring.' The teacher and students, dispatching personnel, and workers joined their efforts and utilized the 'diagrammatic operational method' and the 'tabulation operational method' in linear planning to carry out a rational reorganization of the methods of dispatching vehicles and transferring of goods, and important results were achieved.

After the Chi-ning City Transport Company had stabilized its mileage utilization rate of 'ti-p'ai' carts [a hand cart of some kind] at 73 per cent and that of horse carts improved to 96 per cent, the transport capacity increased each month was equivalent to a transportation charge of more than 570,000 yuan, and an increase of output equivalent to more than 6,860,000 yuan could be made for the state in a year. After the Bureau of Trade of the Chi-ning Special Office had carried out its reorganization on its series of plans covering the production, transportation, marketing, and storage of goods utilizing the linear-planning method, it will save for the state a transport charge of more than 2,220,000 yuan a year. These two savings added together are enough to purchase 606 'Liberation' make automobiles or 908 tractors, which are very impressive figures! . . .

Teachers and students of the linear-planning group made studies and analyses repeatedly dispatching personnel, and after more than 50 discussions, a planning problem in a new mathematical form was finally evolved, which they named as 'maximum and minimum problem of multiple functions.'

Having overcome this initial difficulty, the question that followed immediately was how to solve such a planning problem. This presented many difficulties to these young teachers and students. At this time, Secretary

Cheng Yu-chiao of the General Party Branch of the mathematics department brought a letter by Party committee secretary Yu Hsun-shen of the Ministry [of Education] to the teachers and students, which said: "A smooth boulevard does not exist in scientific research. Victory is always accompanied by difficulties, and to overcome difficulties is victory!" These words of the Party were like torches lighting up the spark of wisdom of the teachers and students.

Theoretical knowledge was learned with renewed vigor and the copy of *Linear Planning Manual* was studied repeatedly. Problems were discussed together and a sophomore student suddenly suggested: "Is it possible to list the possible solutions of this planning question as a group of linear-planning problems, solve them one by one, and then select the best solution among them?"

In creating commune mathematics, they have altogether written 22 theses, arrived at 15 problems of theoretical nature, and written three books totalling over 400,000 words including the "Study and Application of Linear Planning."

Since March 1960 the local committee member of Chi-ning has called two district-wide on-the-spot conferences, and a special linear-planning office has been established with branch directing units in all the hsien and shih. In six hsien and shih including T'eng-hsien and Tsao-chuan, the first secretary of the Party committee personally took charge to include linear planning as one of the important items of technical revolution and had it systematized. In the last few months, 129 on-the-spot conferences or special training classes have been called or started by the three special districts, more than 24,000 persons have been trained, and over 1,890,000 industrial and agricultural masses have listened to reports on linear planning.

Once mathematics has been handed to the masses, its power is greatly demonstrated. Since the large industrial and agricultural masses and cadres love linear planning, they try to employ it in practical work. After the sewing group of T'eng-hsien's Sang-ts'un Commune learned linear planning, they discussed the feasibility of applying it in sewing. The result was that they employed the 'diagrammatic operational method' to carry out the rational cutting. Not only has working efficiency been improved but a very large saving in cloth has also resulted. The chief of planning department of the Bureau of Commerce of Chi-ning Special Office had a brainstorm of his own and applied linear planning to the improvement of statistical reports and tables. As a result, the work of correlating each month the statistical reports and tables of the entire district was completed six days ahead of schedule.

Simplifying The Discovery of Elites

by David A. Booth and
Charles R. Adrian



Since the publication of Floyd Hunter's pioneering study of a Southern city, students of the local community have spread their questionnaires far and wide. There are now close to 50 studies of American communities in print and comparative studies of communities in other lands and other cultures are being reported on in numbers.

Of the various methods available for the study of community decision-makers, the most common is to ask a panel of "experts" or "knowledgeables" to identify the most influential persons in the community. In their study of Cibola, Schulze and Blumberg found that interviews with three rather different nominating panels yielded very similar results. Basically the same groups of leaders emerged in each case.¹

This method of gauging power by attribution has been sharply criticized.² Some of the critics have made a strong case, but they have yet to successfully puncture the elitists balloons. Indeed, it may reasonably be assumed that students of local government, of the local community and of power *per se*, will continue, for some years to come, to study the local community in its various ramifications. The justification for doing so is that a sufficient number of case histories can eventually make political theory on the local community level a reality.

One of the difficulties that has so far discouraged theory development has been the lack of uniformity in the methods used in the various community studies undertaken to date. The existence of several methods is not surprising, for it can be convinc-

ingly argued that no "ideal" or perfect method has yet been developed. On the other hand, a strong case has been made by methodologists for the use of the same technique in several communities, or in the same community over an extended period of time.

Of the several techniques that have so far been developed for the isolation of the leaders in a community,³ the one discussed here is that of Delbert C. Miller and William H. Form.⁴ The technique, disarmingly simple, merely involves:

A panel of fourteen people . . . carefully selected on the basis of their knowledge of the pattern of local influence in various institutional sectors of city life. Thus the panel was made up of two representatives each from mass communication, business, labor, welfare, education, government, and religion. They were asked to submit names of local people whom they felt were most influential and powerful. . . .⁵

In the study described, leaders were defined as "locally powerful people who could get things done in the city or who could kill local projects." From the resulting list of 120 names, the 40 which received the most nominations were interviewed, and were asked to "validate" themselves as leaders. They were also asked a wide array of questions dealing with their personal background and their present and past participation in the community. On the basis of these data, community decision-making in Lansing, Michigan, was described and analyzed.

Two Michigan State University professors continue the collective movement of social science for improved methodology in the study of leadership. They report a new simple and direct technique involving inquiries of informants that produces practically the same names of leaders as more refined and laborious methods.

The particular concern here is not with the results of the Lansing study or with our own current work, but with the method used for determining the community influentials, which relied on the nominations of two knowledgeable from each of the seven institutional sectors of the city. An obvious advantage is that it avoids depending on the nominations of associational leaders. Another is that it avoids giving too much initial emphasis to individuals enjoying considerable prestige and position, who tend to be predisposed toward naming high-status persons. Such people may tend to overlook influentials in other walks of life, such as organized labor. A third advantage is that it apparently makes the selection of a large group of nominations quite likely. In Lansing, the 14 interviews produced 120 nominations.

Another great advantage is that the leadership determination can be quickly accomplished. It does not take much time to select a representative panel of 14 "knoweldgeables" and to interview them. Another consideration, of some appeal to the impecunious researcher lacking foundation support, is that the costs of such a study are nominal. A final advantage is that the resultant data are not so overwhelming that they must necessarily be coded and punched on IBM cards, a factor of some interest to those who do not have ready access to an IBM 101 or an 075.

The Present Study

In 1954, Community A, a midwestern city of 50,000, was the subject of a pioneering study by Ralph Smuckler and George Belknap.⁶ The authors came to certain conclusions about leadership and decision-making in the community, and also added to the now vast literature on the many differences existing between "actives" and "inactives" in politics. In the seven years that have since elapsed some notable political figures have disappeared from the political scene, and the city has adopted a new form of city government. These and other changes seemed significant enough to warrant a new study of the same community. Hypotheses about community change were accordingly formulated and a new study was planned and undertaken. Part of our research in community A involves the determination of the present top leadership group in the city, using the Miller-Form technique. Such changes as have taken place will be reported in due course.

A by-product of the study, but one that may be of interest to others, is our testing of the validity of the Miller-Form technique by applying it *retroactively* to the data gathered by Smuckler and Belknap. By so doing, we hope to make a more direct comparison of the power structure today and its counterpart in 1954. At that time:

A list of active citizens was gradually compiled through the various information sources and was narrowed by additional interviewing. Fifty-six members of this list of "actives" were systematically interviewed . . . and asked about community problems, leaders, groups, their own backgrounds, and their opinions on current political questions.⁷ Among other findings, the authors reported that:

a rather small group of persons (17) is identified as "most important" in local community affairs;

within this group, leadership centers in about six or eight individuals.

The small group (six or eight) of most influential persons in local affairs appears to exert general leadership in community problems of varying substance, but beneath the top echelon the top leadership group appears to vary with the type of problem.⁸

The published reports did not identify the community, and pseudonyms were used to disguise the true identity of the top leadership group.

Carbon copies of the 56 interviews were made available to us through

ON THE COVER: Networks of the national elite. Three diagrams from Floyd Hunter's *Top Leadership, USA* (University of North Carolina Press, 1959). The left figure depicts working relations of top community, state and national leaders in the development of national policies in 1958. The center shows contacts between 6 national leaders and 77 peers on the 1958 tariff issue. The right circle diagrams 4 community, 6 State, and 23 national leaders as they interacted on textile policy.

the courtesy of Ralph Smuckler, and a panel of 14 was chosen from the 56 available. In most cases, individual interviews were almost self-selective. For example, there were only two interviews each from mass communication, education, and religion. Of three union members available, the two having official positions within two unions were chosen. In the case of government, there were four to choose from, but again the choice was almost automatically made, since only two of them had really answered the questions dealing with leadership. In the case of welfare, it became necessary to use voluntary participants, since there were no full-time welfare professionals among the 56 interviews. Two interviews stood out from the many available, in terms of quantitative involvement in the welfare activities of the city, and these were

accordingly included in the reconstructed panel. As might be expected, there were a great many businessmen to choose from. All their names were "put into a hat" and two were chosen at random.

Thus the human element was not completely eliminated in assembling the "reconstructed panel" of 14 knowledgeable. On the other hand, the human element is almost always present in research. It should be made clear that the actual names of the 1954 community leaders remained undisclosed to us while the "reconstructed panel" was assembled and the data tabulated. Only when the top leadership group had been compiled on the basis of these 14 interviews were the results compared to the original list of top influentials, which were obtained from the Smuckler-Belknap working papers.

The Results

It would certainly be unwise to make any very extensive claims for the Miller-Form technique on the basis of our efforts so far. Some basic points of comparison can, however, be made.

First, this technique seems to produce a wide number of nominations. The 56 interviews yielded a total of 60 nominations; the panel of 14 yielded 49.

Second, the panel of 14 yielded very similar results to those of the original study. The reconstructed panel yielded a group of 15 "most important persons," all of whose names appeared in the Smuckler-Belknap group of 17.

Third, there is a high correlation in the rank order in which the names appear on both lists. The Spearman test yields a correlation of .76358 which is significant at the .01 level.

Fourth, the small group of six or eight "most influential persons" is almost identical. Only one name appears which did not figure in the nucleus group described in the original study.

No attempt has here been made to discuss the substantive questions raised by community studies. The purpose has instead been to suggest that the Miller-Form technique for studying the local community, while open to the criticisms that can be levelled at all imputational or reputational techniques, is probably as reliable as any other method. In the present case, it yielded very similar results, on the basis of 14 interviews, to the findings obtained on the basis of 56 interviews.

While this in itself is not a revolutionary conclusion, it may merit the attention of students of comparative politics and local government. Furthermore, since the study of change is indispensable to the study of power, a simple, easy and quick method may make the study of numerous communities, at definite intervals over an extended period, a reality.

1. Robert D. Schulze and Leonard V. Blumberg, "The Determination of Local Power Elites," *American Journal of Sociology*, LVIII, November, 1957, 290-296.
2. Robert A. Dahl, "A Critique of the Ruling Elite Model," *ASPR*, LII, June, 1958, 463-469; Raymond E. Wolfinger, "Reputation and Reality in the Study of Community Power," *American Sociological Review*, XXV, October, 1960, 636-644; Nelson Polsby, "The Sociology of Community Power: A Reassessment," *Social Forces*, XXXVII, 231-236.
3. For a discussion of some techniques, see William H. Form and Delbert C. Miller, *Industry, Labor, and Community* (New York, 1960), pp. 544-546.
4. See Delbert C. Miller, "The Prediction of Issue Outcome in Community Decision Making," *Proceedings of the Pacific Sociological Society* ("Research Studies of the State College of Washington,") XXV, June, 1957, 137-147, cited in Robert C. Hanson, "Predicting a Community Decision: A Test of the Miller-Form Theory," *American Sociological Review*, XXIV, No. 5, October, 1959, 663. The method is also briefly discussed in Form and Miller, *op. cit.*, 556, and spelled out in more detail in William H. Form and Warren L. Sauer, *Community Influentials in a Middle-Sized City* (East Lansing: The Institute for Community Development and Services, 1961). See also Form and Sauer, "Business and Labor in Community Power Structure: A Comparative Study of Participation and Imagery," (Manuscript).
5. Form and Sauer, *Community Influentials in a Middle-Sized City*, p. 2.
6. Ralph H. Smuckler and George M. Belknap, *Leadership and Participation in Urban Political Affairs* (East Lansing: The Government Research Bureau, 1956); "Political Power Relations in a Mid-West City," *Public Opinion Quarterly*, XX, Spring, 1956, 73-80.
7. Smuckler and Belknap, *Leadership and Participation in Urban Political Affairs*, p. 4.
8. *Ibid.*, p. 8.

OCTOBER, 1961

CUBA: HOW FREE INQUIRY EXPIRED

by Jorge Tallet

Dr. Tallet, former head of the Cultural Department of the Cuban Foreign Ministry in the Castro government, resigned his post in September, 1960. He is an outstanding Cuban philosopher and author of several books, one of which has been translated into English as The Absolute Being.

The Destruction of Objectivity

Not too long before I left Cuba last year, arrangements were being made with unofficial government support to introduce some interesting changes into the University of Havana curriculum. For instance, the course on "History of Law" in the Law School was to be replaced by "The Doctrines of the Revolution." With government support, large groups of university students in all three universities of Cuba were urging their professors to pledge allegiance to the ideology in the Law School, the Social Sciences School, the Philosophy School, and other sensitive fields of the government. In the secondary schools, text books were being modified or replaced. In the public grammar schools the teachers had orders to form young minds according to the doctrines of the ruling elite. Even the literacy campaign was being based upon specially written texts carrying intense propaganda for nationalistic, collectivistic and anti-individualistic ideas.

The judicial power was also under pressure to abandon its traditional impartiality and adhere to the revolution. The objectivity of the press was no longer a virtue but a sin. And mere indifference to political matters was honestly considered a wicked stand.

I am inclined to believe that most men in high positions of the Cuban government are well-intentioned and honest. They think they are right. They think they have the truth. Therefore, they think that nobody should be allowed to possess or express a dissenting opinion, because being dissent, such an opinion has to be wrong, and being wrong, it is bound to do harm.

Sacrifice

Unfortunately Cuba does not have a dictatorship of sinners but of puritans. Sacrifice is not only a bothersome means to get something desirable, but an end in itself. It is compulsory to sacrifice freedom has to be sacrificed to equality, the mind has to be sacrificed to the stomach, the present generation has to be sacrificed for the sake of future generations. Sacrifice is virtue. And this at least works as a psychological compensation for the sacrificed joys.

Some sacrifices are necessary in Cuba now, above all in relation to the future welfare of the country. I would not repeat the saying of that old man who refused to sacrifice himself for the sake of future generations on the grounds that future generations had done nothing for him. But I think that the present is the only opportunity we have to fulfill our lives and to enjoy them. As a South American poet said, "One day, one day; what is it now?" To me it does not make sense to eliminate such joys as friendship and trust or the expression of your thoughts on the social conditions, or the making of your way in life with your own effort, in order to arrive in a far future at social circumstances which would guarantee the same few joys that the present provides. In my opinion, that does not make sense even when the immediate goals were those of social justice or national sovereignty, and even though a foreign menace should warrant tough police measures. Now in Cuba, watchdog committees are being set up in every block before whom neighbors may denounce one another. The puritanical intensity of even reasonable social measures

makes them not worthwhile. I have heard in many speeches in Cuba the following proposition: "Every individual now has to endure privation and misery in order for the people to live from now on in happiness and joy."

This abstract concept of "people," divorced from its concrete meaning as the sum of flesh-and-bone men and women, and their actual relations, is one of the main fetishes of the government.

That fetish permits gratifying syntactic errors, as we have just seen. Others are wrapped in semantic confusions. For instance, the concepts of "justice" and "fatherland" are interchangeable in a way that I cannot explain to myself. The concept of "freedom" is another fetish, which means national sovereignty, for the sake of which every other type of independence has to be sacrificed.

Direct democracy

Its majority endorsement, together with the condemnation of the electoral system, allows the Cuban government to claim it is the product of a "direct democracy." Of course this is another semantic twist, since no minority or particular individual is permitted to have its proportional share of the public power, and because if the majority should change its mind, that would not change the government, besides which the opinion of the majority is systematically controlled.

As for the just distribution of wealth, in Cuba there is rather a concentration of wealth in the hands of the state, which, according to its will, distributes it in such a way that no one may ever feel that he owns a share, but rather senses he is merely being paid a salary completely divorced from his capacity or his vocation, or his deserts, or his effort.

This situation does not precisely lead toward direct democracy, since it cancels out the possibility that the

average citizen should have a say in the making of policies. It is a kind of misleading socialism that ignores certain psychological elements of the human being, or perhaps I should rather say of the human worker, who cannot be satisfied with just being paid and with feeling that his government is master of everything, but who would rather feel that he has some effective power within his circle, that he really possesses his share of his circle, and that he is responsible for the fruit of his labor.

The Dim Prospect of Poorer Countries

I honestly believe that the communist influence was not actively responsible for bringing about what is happening today in Cuba. Its main responsibility in this respect is its historical contribution to modern absolutist trends all over the world. Of course, the communists became very active in influencing Castro after they noticed the path that he was taking, and thus gave an additional impulse to the collectivistic policy of the Cuban regime. But this I think happened after the Cuban revolution received theoretical influences of marxism through channels not directly bound to the Communist Party.

I personally used to cherish the hope that the so-called underdeveloped countries might by chance constitute a force against the perspective of a sad and dull life for the human race. I thought that perhaps these countries, many of them with an old culture behind them, still free of mechanical advances, and still fond of real individual values and the enjoyment of life, would now through their poetic or adventurous spirit, and even through their precarious way of living and their idleness, be clever enough to make technological progress without losing their treasure of individualism, joy and wisdom of living. I even thought that those countries could perhaps lead the way toward a

more balanced social order in the world.

The Cuban case has brought me back to earth on this matter. In the light of the Cuban situation and its repercussions in other underdeveloped areas, now it seems probable that the economically underdeveloped countries are going to follow the example of the nations of advanced technology and, what is worse, of the nations of advancing technology and totalitarianism. And in a way that nobody has ever dreamed of! Because these countries have no tradition of modern organization or technological background that might ease the process of collectivization and statism. Therefore, the foundation of this process is built upon artificial institutions, so to speak, and desperate fanaticism. The whole image of a world without critical posture, individual spirit, rational mind, tolerance, freedom of thought, right to doubt, without scientific attitude except for the sake of technology, comes closer and closer to realization.

SSRC RESEARCH AIDS

Social Science Research Council programs for 1961-2 graduate and faculty study and research are announced. These are almost entirely individual fellowships and grants, covering all or part of a year's pay, with modest allowances. Taken together, they are the largest single source of personal basic research development in the behavioral sciences today. Special programs emphasize American government and legal research, and area studies, but every basic field can expect consideration. (Address 230 Park Ave. for applications and deadlines.)

Other research supporting agencies

It is noted that the Doherty Foundation (Princeton U.) supports Latin American fellowships for research, and that the Ford Foundation gives many area studies grants, faculty and graduate fellowships for economics and business studies. The Fulbright awards for study or teaching abroad continue. The National Institute of Mental Health (Bethesda, Md.) supports psychology and related fields. The National Science Foundation (Wash. 25, D.C.) lends aid in all basic fields except clinical psychology, social work, business administration, and political science, but includes the history and philosophy of science. The Population Council (230 Park, N.Y.C.) supports demography training and research of individuals. Grants (not fellowships) are offered in small sums, conveniently timed, by the American Philosophical Society (104 S. 5th St., Phila.) in all natural and social sciences.

Waste As An Index of Social Pathology

by Henry Winthrop

Considering the great importance of waste of all kinds, the concept and its manifestations have hardly received systematic attention. The author, Professor of Social Science at the Univ. of South Florida, sets forth a classification of wastes, and suggests that an annual Gross National Waste (GNW) index might serve as well as the GNP index.

Proponents of balanced living are generally expressing some sort of protest against one or more "irrational" aspects of social existence. Most of the literature of social protest is clearly motivated by a desire to bring into being a "rational" society. This does not mean, of course, a society that shall live by the pure light of reason alone. It does mean a society which is directed by the interplay of intelligence, social altruism, a sense of value in connection with personal development and a sense of social justice. To permit the appropriate play of any one of these factors involves considerable thought and, in a sense, the successful realization of any one of these aims is the *raison d'être* of culture itself.

A rational society has many aims, but one very central objective which is rarely made sufficiently explicit is the avoidance of waste, using this term in a very general sense rather than restricting it to its usual limited, but important, economic meaning. The term "waste" has a large number of meanings, more than most people realize. It would, in fact, be possible to write history in terms of unnecessary waste of lives, resources, ideas and institutions, which have continually taken place. It would also be legitimate to define social philosophy as the art and science of avoiding all forms of it.

In this brief article I should like to spotlight attention upon a few aspects of the problem of waste, which I feel are both of interest and importance. I should like to begin, however, by suggesting a useful way of thinking about this subject, particularly in relation to the ideal of achieving a ra-

tional society. The particular slant I am taking at this point will also serve to suggest some of the plural meanings which the term "waste" possesses.

The Dimensions of Waste

There are four basic questions one can ask regarding waste. These concern themselves with the Kinds, Forms, Amounts and Values of waste. Let us begin with the notion of *Kinds of Waste*. (A) what kinds of waste can occur? I think that a little thought will suggest that one useful grab-bag of categories (although it is to be emphasized, not the only one) are the following: Goods, Services, Time, Money, Talents, Labor, Resources, Technology and Ideas. Some kinds of waste cannot properly be classified under any one of these kinds, such as, for example, the waste of space, as in poor city planning or inefficient industrial location. Nevertheless, it is useful to limit oneself to the kinds of waste proposed here, as a start. (B) What *forms* of waste can occur? The answer to this question will depend upon the particular *kind* of waste we are talking about. The forms in which waste of a given kind can occur are the products of current values, current state of technology, current cultural themes and institutional characteristics, etc. In order to illustrate what we mean let us consider *some* of the *forms* of waste which can occur under the category of waste of *Goods*.

(1) Goods which are discarded before their useful life has been completed.

(2) Goods whose manufacture was unnecessary in terms of human needs.

(3) Goods which have either been

deliberately destroyed (by war, economic dumping, etc.) or by accident (e.g., household breakage, collisions of carriers, etc.)

(4) Goods which have been lost by natural catastrophe (storms, floods, earthquakes, etc.) where, of course, provision could have been made against these catastrophes.

(5) Goods improperly made or designed (seconds, rejects and allowances, jerry-built items, etc.)

(6) Goods which are never used (books never read, food kept until it perishes, new machine parts scrapped as a surplus, army and navy supplies destroyed, dumped or neglected, etc.).

(7) Goods lost through human negligence, carelessness or indifference (goods in transit, equipment allowed to spoil, etc.)

(8) Goods misused so as to reduce their natural life (improperly cared-for materials, wrongfully located materials, finished goods used in the creation of disutilities such as useless or harmful proprietaries, cosmetics, etc.). This list is, of course, not exhaustive. However, it does serve to illustrate what is meant by *forms* of waste. Naturally the classifications of the forms waste takes would be quite different for another category.

There are two more questions which we have to ask about waste. (C) We also need to know the amounts of waste. These are expressible usually in some physical unit although this need not necessarily be the case. Thus a waste of human intelligence and aptitudes, which would come under the category of Talents, might have to be expressed in terms of the number and *kinds* of utilities

the community may have lost through this waste. (D) Finally we must know the value of waste. This has to be expressed in dollar units and may therefore be the most difficult question to answer since the figures will depend upon fluctuating price levels for goods and services. An even more serious difficulty is the translation of waste in talents and services into dollar units. This often requires ingenious, quantitative procedures, tedious fact-finding and unusual modes of intellectual organization.

Wasted Services and Money

Let us now consider some examples of waste within each of the categories (Kinds) we have mentioned. Technicians who are employed to perform simple, administrative duties would represent a waste of *services* in those situations in which the functions they perform are essentially clerical or subprofessional in nature. The reason this would be defined as waste is that the value which could have been created by the services which were never employed are lost forever to the community. The value of this loss would be the difference between the dollar value of these services at the going, average salary rates less the dollar value actually received for the services actually performed, for the *period during which these services were wasted*. Time can be wasted in many ways. It can be wasted by being "killed," that is, by being expended on activity or inactivity used to avoid boredom, activity which creates no value, such as getting drunk or reading a low level comic book for the third or fourth time. Where either the individual, himself, or the community could use this "killed" time for the creation of needed utilities, this would then constitute a *waste of time*. Here, however, because the time could have been used for the creation of a variety of utilities or useful services, an estimate of the value of the wasted time presents difficulties. In this example the wasted time is not re-

garded as *recreational*. Recreational time would not be regarded as wasted time. However, it would not always be easy to decide whether time has been spent recreationally or not.

Money can be wasted in several senses. It may be used to purchase illth, to purchase an item not needed at all or to purchase goods and services for which overpayment has been made, etc. The money thus paid or overpaid is waste and corresponds to various utilities for which the consumer might have been able to claim potential ownership. Having foregone this ownership can be regarded in effect, as equivalent to having goods which were never used. Talent may be regarded as wasted if it is never used, if it is misused or if it is not properly trained and, in principle, it is possible to estimate a dollar value corresponding to these wastes. Labor is wasted when men are idle, when labor is allocated to the creation of disutilities, or where it is allocated to the less urgent needs of a society which possesses a hierarchy of needs. In an economy of scarcity the proper disposal of labor constitutes a problem in the proper allocation of resources. In an economy of abundance where there is more labor than is needed and where an oversupply may be allocated for any given objective, the waste of labor would be the dollar value of goods which had been paid for, but which could not be used because they were in oversupply. Resources are wasted every day and the reader requires no examples here inasmuch as there is a vast literature on the subject. The estimate of the value of wasted resources, however, may give rise to some very knotty problems. Ideas are wasted when, if put into practice, they would satisfy current needs with the resources and know-how presently available, but they are not put into practice. In this sense inventions filed in the Patent Office and unutilized, whether out of ignorance of their existence or because they are held by a patent pool which would find it economically in-

jurious to exploit them, would constitute a case in point. The waste involved would be roughly the difference between the cost of present goods made by existing equipment less both the estimate of the cost of these same goods if made by the as yet unutilized invention and the sum of all new costs involved in getting production started under the type of equipment. Another example of a waste of ideas would occur if information in the possession of certain people could lead to the creation of needed goods and services but no social means exist for bringing together the information and the individuals in question. It should be clear, of course, that for many social situations many *kinds* of waste may be occurring simultaneously.

GNW greater than GNP

If the *dollar value* of all the waste occurring in all the *forms* falling under the several *kinds* of possible waste, could be totaled, it would be enormous and would probably exceed the value of gross national product many times over. One could probably define the social efficiency of a society in terms of its *gross national waste per capita* or *per income receiver*. An index of this sort unfortunately could not be used to measure the *degree of rationality* of a society because of the highly variable nature of the factors that enter into the dollar composition of waste. Society A may have a figure for total waste three times as large as that for society B but A's entry for the waste of Talents may be extremely small while B's entry for this same factor may constitute 90 per cent of the total. A may be wasting chiefly money via investments and time through the grip which maladaptive traditions has on its population. B, on the other hand, may be creating chiefly an immense amount of unnecessary tragedy and suffering. Where the international community shares a common set of values, or at least *pays lip service* to

a common set of values, then the order of preference for these values may be such that the waste of talents is regarded as of far greater significance than the waste of money and time. The *subjective weights* thus attached to objective dollar units of waste in different categories may far outweigh the *dollar totals* for A and B, so that impartial observers might judge A to be a more rational community than B. Because rationality is inevitable bound up with such subjective, community preference scales, gross waste per capita is probably more reasonably regarded as an *index of efficiency* rather than an *index of rationality*.

Waste of Social Injustice

Thinking in terms of waste focuses attention very succinctly on the irrational aspects of society, on social injustice and unnoticed personal tragedy. Thus, in Western culture, we thrust upon woman the roles of wife and mother, often to the exclusion of their right to achieve self-fulfillment. Women of awareness and intelligence by and large welcome these roles but they do object to assuming them to the exclusion of their right to function as persons. A rational society would make it possible for women to divide their time effectively between the family and the personal roles, without loss to, or strain upon, either. If we measure the value of the woman-hours of lost services that would have been won if women had equal rights with men to the exercise of their talents, this would constitute an enormous waste. The force of this point is increased if we recognize that household labor-saving devices make it unnecessary for women to allocate two hours of time to services in the home, where one will suffice. The difference, of course, represents wasted time enforced by tradition and custom. A similar set of considerations applies to talents which never receive their birthright of a necessary education.

Planned Waste

Social irrationality, of course, is more easily noticed in terms of the dollar value of prematurely scrapped, obsolescent means of production, of prematurely discarded goods, of the volume of unnecessary goods (illth) manufactured and of the value of all the goods and services used up in the manufacture of such illth. Under the aegis of the advertising profession the premature discarding of goods is socially encouraged under the euphemism of *planned product obsolescence*. To the proverbial Man From Mars, of course, the irrationality involved would be its most conspicuous attribute and he would have little difficulty cutting through the rationalization provided by this euphemism.

Cross-cultural Comparisons

The concept of waste lends itself very readily to the cross-fertilization of criticism. Thus the economic and social arrangements of different societies can be contrasted in terms of estimates of the gross national wastes to which they might lead. The rationality of a society might be studied in terms of the social psychology of waste which it encourages in consumption and the kinds of forms of waste in which it specializes. The effectiveness of literature and the arts can be viewed in terms of the awareness of the social encouragement of human waste and the degree to which this awareness is made effective by powerful literary and artistic protests. A community's social philosophy can be evaluated in terms of whether it permits individuals to cut through social forms and practices which encourage waste and effectively supersede these by institutional devices aimed at eliminating that waste. On the psychological side, if one arranges the total dollar value of different kinds of waste in terms of the degree to which a community is willing to tolerate them, from the most tolerable to the least tolerable kind of waste, a certain advantage is gained. Such a

preference scale for maintained waste would starkly reveal the scheme of values which characterizes this community in particular.

Normal Waste

In seeking to develop a rational society one has to avoid waste but the waste to be avoided is *unnecessary waste*. There is such a thing as *normal waste* and this is to be tolerated. Two examples will make our meaning clear. Certain processes of production result in discarded materials, such as fruit cores, pits and peels in canneries, or wood or metal shavings in certain industrial processes. Such discarded materials are waste from the standpoint of an industrial engineer's ideals, but they may have to be tolerated in terms of the existing state of technology. These would therefore constitute examples of "normal waste." The dream of processing every part of the pig except the squeal, may be a boastful ideal among meat-packers but the dream of superefficiency which underlies it may be irrelevant and intolerable socially and technically for many manufacturing processes. A second example is provided by a new invention which, if utilized, might make for a more efficient use of the raw materials of production or for an increase in the output per unit time or per unit dollar invested. However, there may be a considerable but necessary time lag before the present industrial machinery can be displaced by the new type of equipment, once it is decided to exploit the idea behind the new invention. During this time lag, that is, the period stretching from the time we first acquired our knowledge of the practical possibilities of the new invention and the time we begin to manufacture with the new equipment, we have no right to regard the output being manufactured during this period as *partial waste*. Such time lags for every type of social invention are inevitable and therefore constitute "normal waste."

Clarifying the Philosophies of Waste

In general the subject of waste can be discussed from several points of view. The most frequent point of view is, of course, economic, although as we have pointed out, the forms of economic waste are legion. Traditional studies of waste are of this type, such as Stuart Chase's *The Tragedy Of Waste* (Macmillan, 1925), K. William Kapp's *The Social Costs of Private Enterprise* (Harvard University Press, 1950) and David Rockefeller's *Unused Resources And Economic Waste* (The University of Chicago Press, 1941). In addition, however, to the economics of waste, there is a psychology of waste. This would be concerned with waste in human effort, talents, ideas, attitudes, interests and levels of aspiration. There is also a philosophy of waste. This would have to do with mistaken goals, values, needs and consumption. Such mistakes would tend to be embodied in some form of social philosophy. A social philosophy would tend to define the good life in such a way that certain forms of irrationality and thereby of waste would naturally be encouraged. Probably no society would be free of some philosophy of waste although different social structures would be characterized, of course, by different philosophies of waste. Mass democratic culture, under the influence of rapidly obsolescing techniques of production, encourages many forms of waste—waste of human energy, resources, money, capital goods, etc. These are almost the necessary prerequisites of Galbraith's affluent society. Quite different philosophies of waste would, of course, characterize economies of scarcity. Intentional communities and communitarian societies and groups arise essentially as protests against the characteristics of prevailing philosophies of waste found in industrial, urban, bureaucratic and highly centralized societies. We can also speak of an ethics and morality of waste. People, for in-

stance, are beginning to sense the immorality involved in such practices as the piling up of food surpluses in the storage units available to the Federal Surplus Commodity Corporation and economic dumping, both used to stabilize prices, while millions go hungry. Activities of this sort are not only an example of the creation of goods which are never used but they focus attention on the moral issue by juxtaposing the fact of starving millions against this piling up of unused surpluses.

Finally let us note that the manner in which the concept of efficiency is defined depends upon the prevailing philosophy of waste. If efficiency is defined in terms of rising production and profit, then idle labor is a misfortune but idle machinery is a waste. If technics are worshipped, the entrance of tragedy into human life as a result of technological change is regarded as an inevitable side-effect of the mechanism of the market, while less than full production is to be regarded as waste. If on the other hand, one is moved by the existential awareness of the importance of man's fate, then the aimless worship of new technology and invention, the meaningless demand for increased productivity and consumption under the banner of gracious living, are, in turn, seen as waste in human life while the simple life and the search for a budget of genuinely human values, are the considerations to be emphasized. Of one thing we can be certain. A full-scale study of the pluralistic meanings attached to the term "waste," can serve to promote fuller understanding of social processes, deeper understanding of what is meant by a rational society and a sharper emphasis on the meaning of social justice.

The ABS makes a thoughtful and useful gift to your friends and relatives who are in the social sciences. You may wish to use the card enclosed in this issue for that purpose.

ECONOMIC DEVELOPMENT RESEARCH



Men and Money in Tropical Africa

by Ted Gurr

The "New Africa" is a thin stratum of Western social, political, and economic practices overlaying many older strata of existence that are lumped together under the generic phrase "traditional life." By the Western standards that are the touchstones of the new African governments, tropical Africa is among the most underdeveloped areas of the world. The per capita annual income of Africans, as evaluated by the tools of Western economics, is well under \$150, with the single exception of Ghana. And underlying the still-echoing cries of "In-de-pen-dance!" and "Uhuru!" is an economic motive—the African citizen wants more of the goods of Western life and believes that he must be master of his own destiny to obtain them.

Thus Africa is fertile ground for the economic planner, or so it appears at first blush. He has developed a large collection of tools over the past several decades. He has theoretical models of economic development, refined research methodologies, files of case studies on the course of technological and economic progress in different areas and countries.

In light of the capabilities of the applied economist, however, the ac-

tual course of economic development in tropical Africa appears in sharp contrast. The first issue of the United Nations Economic Council for Africa's *Economic Bulletin for Africa*, published last spring, summarizes the patterns of economic development thus far: much of the relatively limited development funds available has been spent not in keeping with long-range, comprehensive plans but in response to a variety of unrelated conditions needing immediate attention.

Economists have had a hand in planning, of course, because the new governments, along with the colonial administrations that preceded them, have often drafted and attempted to carry out long-range programs. But the results include few outstanding successes. Partial success—or partial failure—has been the usual lot of Western economic planning in tropical Africa, and the costs have been extraordinarily high. There are huge dams in West Africa that can find a market for only a fraction of their hydroelectric potential; road systems in French-speaking equatorial Africa that were designed to bring commerce to new regions are reverting to bush and jungle for lack of use because they were built in areas having no more than ten inhabitants to the square mile; expensive agricultural machinery is rusting in Ethiopian warehouses and Sierra Leone swamps because it was not designed for tropical conditions and because it did not suit the needs of the land and the people; technical training schools are being closed for lack of enrollment because the skills they can train are either not applicable or find no ready market.

No single group bears the guilt for such failures of planning. The major contributing condition is faulty intelligence on the part of the economist, the politician, and the administrator. On the most fundamental level of information, population data is inadequate, production data is artificial or nonexistent, and income data

is biased. Some African countries have never attempted a census; others rely on administrator's estimates for each district, region, or canton. Yet adequate demographic data is all but a necessity for successful planning. Subsistence production and barter trade, the primary economic activities of the great majority of Africans, is immensely difficult to assess. In the case of production, methodology is often no more sophisticated than this: guess the dietary patterns of a population, estimate its numbers, add known exports of food and subtract known imports, and conclude that X tons of cassava, rice, and manioc and X thousand chickens must have been produced last year.

We have just begun to open the lid of a Pandora's Box of unanswered questions. What is the effect on agricultural production of drawing 10,000 men into an urban labor market? What policies and conditions can decrease the tremendous labor turnover of almost every African industrial and manufacturing enterprise? What are the actual economic aspirations of different sectors of the population?

Many other questions lie beyond the domain of the economist. Tropical agriculture is strikingly different, and far more difficult, than temperate-zone agriculture. The lushness of tropical Africa is largely a fiction. Tropical Africa has either too much or not enough rainfall; the soil is poor and easily leached and eroded. For 150 years, with monotonous regularity, intensive-cultivation schemes in tropical Africa have failed for lack of adequate knowledge, equipment, and fertilizers. There have been few land or geological surveys, few comprehensive mineral surveys. The first major oil strike in Gabon came after two decades of intensive exploration throughout the country and was made about 200 yards away from the desk of the survey director in the capital city of Libreville. At the human end of the scale, resettlement and agricultural improvement programs have

failed time and again because administrators, African as well as European, have lacked knowledge of the desires and interests of villagers and have not made appropriate efforts to inform and educate them.

A major research effort in tropical Africa is indispensable for adequate economic planning, and many men are currently at work. But the literature on Africa is still heavy with ethnographic surveys, linguistic studies, and analyses of new political movements. What is needed desperately, however, is more applied research by the economist, the psychologist, the sociologist, and the anthropologist, as well as by technical experts. In many cases the research must begin at the strictly descriptive level, yet even this research can have a major impact on economic development, and it may also lead to major theoretical contributions.

An unanswered question will nag the economist for some time, however. How relevant are the tools and methods of Western economics to an African setting? Economists in Africa may find their models and methodologies breaking down and rusting away in the African environment like the trucks and tractors of Detroit, Stuttgart, and Moscow, for the methodologies of social science, as much as machinery, are the product of a specific type of Western culture. The social scientist should be able to adapt his methods to a different environment—if he is aware of the problem and capable of adapting.

ABS SPECIAL RATES FOR CLASSES

An instructor desiring to use the *ABS* in his classroom can obtain subscriptions for his students at the special rate of \$4 each for five or more persons. He will also be provided with a desk subscription gratis. Please address *ABS*, P.O. Box 294, Princeton, N.J. including a list of the students' names and addresses.

Three University atmospheres are conveyed in excerpts from the Bulletin of the Committee on Science and Freedom (#19, June, 1961, Manchester; Michael Polanyi, Chairman). The American will remark how all of these problems, with only slight change of scenery, are found at home. . . . The Editor of The Indian Journal of Social Research indicates briefly in the fourth piece the principal tasks of Indian social studies.

ON THE UNIVERSITY OF MALAYA

T. H. Silcock

Founding member until 1960, author of a forthcoming book on the universities of South-East Asia, The Running Stream.

One decade, which I experienced, saw the development of a University of Malaya which can certainly claim some degree of international recognition. If the aim of University policy is to produce students who will be accepted for graduate studies in any University using the same language, and articles in the leading international journals by members of the staff, or favourable reviews there of their books, then this aim has been in some measure accomplished.

It was, of course, possible to draw some consolation from this fact for the increasingly obvious failure of the University to achieve other results which became more and more important to me as the years passed. We were failing to secure from the general public in Malaya, or even from the English-educated public, a loyalty based on recognition that we were helping them to work out in clearer forms their own aspirations and to solve their own problems. We were not producing graduates who wanted to go on seeking new knowledge and publishing it after they left the University, nor even producing the administrators who would successfully demand that new research should be done, and the professional research workers who could do it. Most of our graduates still regarded the University, even after they had

graduated, mainly as the place where they had obtained their qualification, and not mainly as the place which had made them what they were, and given them ideas by which they could live and lead their nation. We could not count on the warm support of a group of wise and widely trusted men and women, who would defend the University's position in society because they saw in the processes of learning and reason the way to the solution of their country's problems. Increasingly I came to feel, as we came into conflict with our own graduate body, or found its attitudes unhelpful to the development of academic life, that it was these things that were missing from the tradition we were creating. . . .

Effective aid by the universities in the wealthier countries of the world to those in economically less developed countries implies not merely a number of technical devices—valuable though these may be—but a good deal of rethinking of the role of Universities in furthering their own special values. For unless this is done there is no way out of the dilemma of either defending vigorously an identical form of academic values, which—subject to the pressures in these new conditions—will result in isolation, overwork, imitation and sterility; or alternatively leaving these Universities to respond passively to the demands of politicians or entrepreneurs without support for any academic values at all.

This rethinking will have to be done not only in the underdeveloped countries themselves, where there are welcome signs that it is already be-

The World Intelligentsia



ginning. It will be necessary for the older Universities also to think what pressures they should be exerting and what help they should give. For it is really not sufficient merely to welcome the visiting professor from India or the Philippines with the outward forms of courtesy and inwardly to despise his University for its failure to conform to accepted norms. . . .

Within the last few decades the world academic community has been brought into contact with a much wider society. Several hundred million largely illiterate people with new aspirations toward economic development and new hopes from nationalism are now an important part of the world to which the academic community must adjust itself. The pressures which they exert fall mainly on the Universities of the economically underdeveloped countries, but they are real pressures that condition the influence of learning and reason in the world as a whole. If attention is not given to the problem which these Universities confront, they will face tasks beyond their strength, and their failure will be the failure of the learned world to grasp an opportunity.

ON THE BELGIAN UNIVERSITIES

Lucien Massart

University of Ghent; President, Belgian National Council on Scientific Policy.

Professors at the State universities enjoy complete academic freedom and, strange as it may seem, are more favoured in this respect than their colleagues in the non-State universities, at least as far as absolute freedom of philosophical conceptions is concerned. The independent University of Louvain is a Roman Catholic institution, whereas that of Brussels believes firmly in the principle of liberty of thought. Both these universities are exempt from any form of State control. . . . Even the fact that the non-State universities now receive State subsidies (90 per cent of those granted to the State universities), has in no way affected their complete freedom. . . .

The university system suffers from "inbreeding." A student who enrolls as a freshman at one of our universities, in general completes his studies and specializes further in the same establishment, even though such programmes may be better organised in another university thirty miles away. The professors, too, are for the most part recruited from graduates of the same university. A major cause of this and other difficulties is the difference in language and philosophical approach, as between different universities. These differences do not affect inter-university relations, which are correct and even cordial. In order to preserve these good relations, however, everything has to be done four times; once for the Flemish-speaking University in Ghent, once for the French-speaking University in Liège, once for the Catholic University in Louvain and once for the "liberal" University in Brussels. The two independent universities attach great importance to the number of enrolments, as this is a measure of their

ideological appeal. What is more, their autonomy is so wide that they may establish any teaching course or other activity which they consider desirable, and the State may not interfere in any way. They could, if they so desired, thwart every move towards the efficient planning of higher education. It must be acknowledged that this situation is fraught with danger, for, however much we respect and value academic freedom, university education is now so important from every standpoint that planned development is absolutely essential.

In my own view the university structure in Belgium should be subjected to a thorough reappraisal. The State universities are shackled in a way that deprives them of sufficient freedom to pursue a broad academic policy, and the independent universities have not succeeded in resolving some of their special problems. I have in mind, particularly, the adaptation of the facilities offered by the universities to the rising trend of student numbers. Everybody talks about the auditoria with hundreds of students, and the vanishing contacts between student and professors: nobody has suggested a solution.



THE UNIVERSITIES IN FRANCE

Marcel Bouchard

Rector, University of Dijon

Today, as we survey the university scene, we find that all traditional ramparts of their independence and freedom have, over the centuries, either been gradually undermined or else violently destroyed, in the course of the changes that have taken place in political institutions and social systems and in the climate of public

opinion, as well as in the content of knowledge and research and the methods of education. So far from enjoying special privileges, the medieval corporations have, in fact, ceased to exist. The Church and its members are no longer exempt from the common law; the state no longer admits the right of the ecclesiastical power to control or limit the exercise of its authority, or indeed to interfere in any way in its affairs. In many countries, and particularly in France, the teaching of the young has been taken over by the state as one of the privileges of the sovereign power, and the means of providing it with docile and devoted civil servants. Teaching has come to be regarded as a public service; an integral part of the state's functions and (in the opinion of some) its most sacred and important duty. At the same time, the degrees conferred by the universities have ceased to be the successive stages leading to the conferment of a professorial chair, and have become, instead, certificates denoting the acquisition of knowledge which is required in the exercise of jobs and professions in the world outside the universities. And the state, being strongly concerned with the needs of the community for able and trained personnel, is driven by a kind of fatal necessity—even more than by deliberate intent—to organise and regulate the courses of university study and the examinations to which they lead, and to meddle in the affairs of the universities.

Government intervention has been favoured, and indeed caused, by the fact that the help and support of the state (or, to put it plainly, the state's financial assistance) has become in most cases, the principal source—if not the only source—of the university's income. In France, for instance, the almost nominal registration fees still payable by the students represent a drop in the ocean; the fees of 500 student are barely sufficient to pay the average salary of a university

SOCIAL RESEARCH IN INDIA

by G. C. Hallen

teacher. The consensus of public opinion, as well as the straitened circumstances of many a family which is richer in children than in goods, make it impossible to charge the full cost price for the provision of higher education—or, indeed, even to make any appreciable increase in the current level of students' fees. It would be even more useless to expect this vast gap between income and expenditure to be covered from private donations; its dimensions are too enormous and too rapidly increasing for any such remedy to be contemplated. The ever-increasing student population, and the ever-extending scope of research and teaching have imposed upon us insatiable demands in terms of staff numbers, laboratories and lecture theatres, costly and complex equipment which rapidly becomes out of date, and libraries and collections which require constant and unceasing replenishment. To meet these enormous demands and to ensure that the flow of subsidies and loans is made available at all the manifold points where it is needed, there is only one beneficent agency to which we can look, in this present day and age—and that is the state. . . .

The existence and independent status of university scholars, and the respect accorded to their individuality, are vital conditions for the spiritual enrichment of a world in which, at the same time, they are unable to do without help and support. The difficulty lies in resolving this apparent contradiction, by achieving the ideal situation whereby the state regards the conduct of higher education as a public service for which it must assume ever-increasing financial responsibility, but at the same time resists the temptation to keep the universities in official leading strings and to treat them as though they were ordinary departments within the system of public administration. Upon the moderation and liberal outlook of the state depends, in the last resort, the maintenance of university freedom.

The fields of social research in India differ greatly from that of the other countries in the West because India, unlike any other country, presents a variety of social problems, which are peculiar to her social situations and social relationships. India has her peculiar traditions and customs and her various social problems will have to be viewed in their own perspective. We can certainly benefit ourselves from the experiences and techniques derived from the researches in the other countries. But, at the same time, new techniques will have to be developed and new experiences gained.

So far, social researches in India have been carried out as a pastime activity and, truly speaking, due seriousness has never been attached; and it would be no exaggeration to say that social researches in India were mostly motivated by certain specific considerations. Researches by individuals mainly concentrated on problems that were, on the face of it, very interesting and that could be easily cashed at the counter of the government agencies or the government sponsored institutions. They also reflected an imitation of the West and were hardly oriented in a genuine Indian perspective. Researches carried out by private institutions or social institutions mainly concerned themselves with sumptuous grants from a variety of sources and the results were of little practical value to the Indian society as a whole.

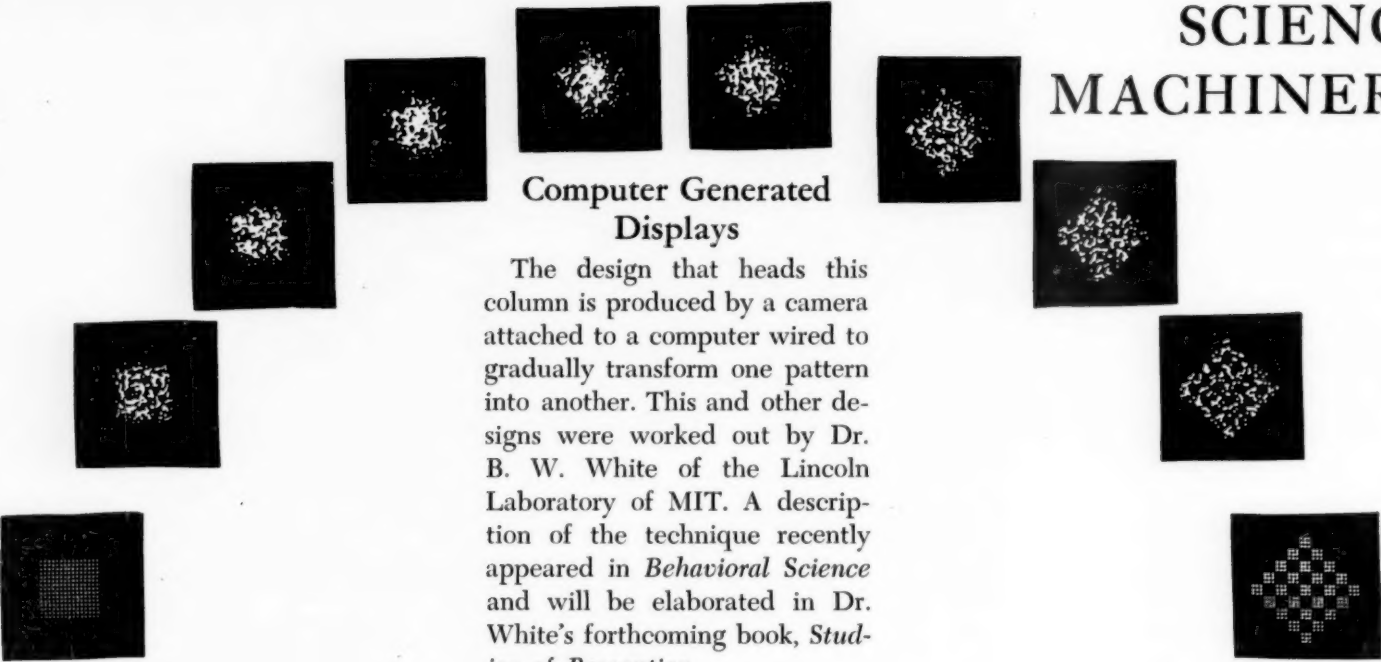
Therefore, it seems highly imperative that the broad fields of social research in our own country be clearly laid down so that amateur or mature social scientists may devote their precious time and genuine interest in investigating relevant facts, which, in their ultimate analysis, may have practical significance. In the first instance the two fields—the rural and the urban—should be treated sepa-

ately for any social research work. Secondly, researches should be carried out in the field of new social organizations, which are gradually emerging out as a result of the movement of the Indian population from one corner to the other. These researches will reveal many interesting problems of population, occupational stratum, leisure-time activities, educational resources and requirements and various other social organizations at the different levels of society.

Thirdly, there is an important socio-psychological field in which problems relating to different religions, castes, traditions and customs, social prejudices, stereotypes, legends, folkways, folklores, attitude measurement, etc., may be investigated with profit. Fourthly, various cultural problems need special emphasis. Some cross-cultural studies have no doubt been made in this field. But one great drawback of such studies has been that their technique was quite unsuited to Indian conditions. Indian culture has its own peculiarities. Besides, it synthesizes so many other cultures and, therefore, this field mainly presents a difficult problem and hence a careful handling. The importance of various cultural changes has also not to be overlooked in this context.

Fifthly, there are socio-economic problems that have come up as a result of the growing pace of industrialization and urbanization. In this field the various technological developments will have to be given due weight, otherwise very erroneous results may come out. Sixthly, the tribal areas, e.g., Nagas, Todas, etc., present a vast field for sociological studies. Likewise, many such social fields may be explored out and social research work in India may be planned well in advance. In the end, it may be pointed out that all such researches should be well-coordinated and integrated.

SOCIAL SCIENCE MACHINERY



Computer Generated Displays

The design that heads this column is produced by a camera attached to a computer wired to gradually transform one pattern into another. This and other designs were worked out by Dr. B. W. White of the Lincoln Laboratory of MIT. A description of the technique recently appeared in *Behavioral Science* and will be elaborated in Dr. White's forthcoming book, *Studies of Perception*.

AMA's Teaching Machine Conference and Exhibit

We attended recently a conference staged by the American Management Association on programed learning and teaching at the AMA headquarters in the Hotel Astor. Some 2 dozen organizations exhibited all varieties of self-learning equipment. The AMA interest is natural, since teaching machines find a ready market in industrial training. The industry, consisting, some say of a hundred manufacturers already, is only in its infancy. The exhibits indicated a fairly early stage of development: the price range (from \$5.00 to \$5,000) was great; the adaptation from pre-existing slide projection, bound-book and other established teaching media were all too apparent; the programs were insufficient in number and quality.

We found ourselves making mistakes that we might not have made on the machine with the Russian primer, but maybe that was because others were looking over our shoulder. And then when it came to the rapid-reading learning machine, which flashed a scanning light on single lines of words at a time at a good speed, we

were annoyed, because when we read fast we read by the several lines and we jump around the page. And in our frustrated pride we think how will any child learn to read in that superior way on this machine, hitting every word and line with mechanical efficiency.

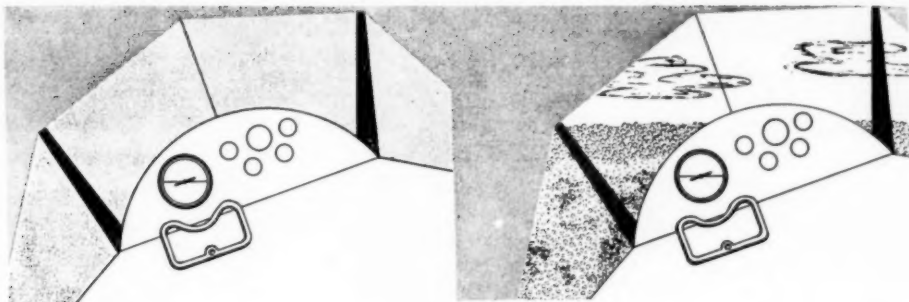
No one seems to be making profits on their machines, unless it be the Grolier Society—Teaching Machines Inc. partnership. Companies are speculating with their R&D funds and foundations are giving aid. As we pushed our last lever and turned our last crank for the night, we wondered whether the deathknell of the comfortable sofa was sounding and how children could read and eat as we used to do if the left hand pushes the lever while the right hand answers questions. But then we realized that the teaching machine is the answer, not to reading, but to non-reading. And the science of programming will be a contribution to the organization of a discipline's material when the discipline has not provided the organization out of its own initiative.

THE CENTER FOR PROGRAMED INSTRUCTION

The Center for Programed Instruction, Inc., was established in 1961 with the aid of a grant from the Carnegie Corporation as a direct successor to the Collegiate School Automated Teaching Project. Since then, the Center has dedicated itself to research and experimentation in the burgeoning field of automated, or programed, teaching, seeking to construct, analyze, and revise programs for distribution not only through its own means but through others.

The Center is testing the use of programed instruction on all levels of education and gives guidance to schools and school systems engaged in their own research. It offers a limited number of experimental programs to schools wishing to investigate the possibilities of automated teaching. It is also training programmers and teachers in the use and preparation of programs. Programers are trained on commission from publishers or school systems and teachers are trained in summer workshops, at least 6 of which will be offered each year in cooperation with sponsoring universities.

(Cont. on next page)



Human Factors Engineering

HumRRO: Army research

Some of our readers will remember a "flap" a few years ago when it was discovered that army psychologists were trying to cure the tendency of many soldiers to go through battle without firing their weapons in anger. That study and a number of others of a fairly specific applied character are the stock in trade of the Human Resources Research Office. This office consists of a hundred professional and 150 technicians, clerks, and administrative personnel employed by George Washington University under contract to do work for the Office of Research and Development, Department of the Army. The work of HumRRO (pronounced hum-row) is done

(Cont. from page 26)

The Center will expand into other areas in the next few years. It contemplates defining the relation between programed instruction and the intelligence of the student and ascertaining the frequency and nature of the response necessary to produce successful learning from a program. It will study how to integrate programs into classroom situations, and how to establish a criteria for the evaluation of individual programs. It will experiment with new mechanics, particularly those using film and tape in addition to print. Finally, it is to be concerned with the relative roles of the subject-matter specialist, the psychologist, and the teacher in the construction of programs, and with the nature of training required by prospective programmers.

by psychologists working in the field. A word about each of several projects will perhaps give a clearer idea of the way HumRRO operates.

- Methods of developing the leadership of non-commissioned officers are under constant study, employing observation, definition of tasks, experiment, revised training, and follow-up.
- A job description of the 98 performances required of a light weapons infantryman was undertaken, an improved realistic training program devised, and is being tested.
- A team is studying the attitudes of recruits on entering the army and how the current reception and training procedures affect attitude.
- Simultaneous instrument and contact training for pilots has been discovered to be superior to the old method of achieving high skill in visual flying before learning to fly by instrument.
- A reduction of time of training from 1,000 to 400 hours was accomplished among students of the operation and maintenance of an anti-aircraft fire control system without loss of ability.
- Automated foreign language instruction, especially in basic language useful to front-line interrogation, has been developed.
- Methods of simulating tank battles, to provide training otherwise too costly, were devised.
- Improvement of training of aerial observers has come about through the patient systematic sifting and testing of all perceived factors in successful target estimation.

The evaluation of the HumRRO program is difficult, in the absence of public financial accounting. However, it is fairly apparent that the research

done applies well-known techniques of control and experimental groups and performance tests, with the tests serving a double role in changing the substance of the activity even while created initially to measure it.

Some of the studies have apparently improved performances strikingly, leaving one to conclude that, unless their cost was enormous, the army has obtained good value from its contracts. When you are working with infantrymen, for instance, your work can be projected to thousands of similar cases; the slightest improvement of function is worth the cost of an aircraft carrier.

• HumRRO has just published a bulletin (#8) on its activities. The details on a number of the projects discussed are enough to save any skilled group a great deal of time and money in replicating them in other settings—or other countries. One might say, conservatively, and giving a value of only \$1 to the problem-idea that is often the most valuable part of a study, that the Soviet army, if it intended to use applied social science in improving its performance, could pay two million dollars for this bulletin and get a bargain. Admiral Rickover became agitated over the plastic toy Polaris submarine that appears to convey valuable information to foreign governments. The same measure of concern may be voiced over the description of human factors engineering studies in an information bulletin. A reasonable hope is that the Russians' bureaucracy is not constituted to admit this kind of work and influence in its operations, so that the intelligence would roll off its back.

New Studies in Behavioral Science and Public Policy



These items are selected and annotated by the ABS staff in a periodic search of new issues of 250 journals and reviews, including about 100 that are published outside the United States, and from announcements and review copies of books and fugitive materials recently published. Some items are boxed for emphasis. The question underlying the whole selection is: What might a professional person read to keep abreast of the development of method and content in the various areas of the study of man.

AD HOC CITIZEN COMMITTEE. *Voluntary Health and Welfare Agencies in the United States*. New York: Schoolmasters' Press, 1961. 88 pp. \$1.00. This is a scientoid manifesto of the type described in ABS for May, somewhat lower-pitched than most. Voluntary health and welfare agencies are a big area of American civic activities, coming close to the heart of the meaning of democracy, but subjected in the past to very little true research. As expected, everyone favors clear goals, decentralization, but integration too. And research is recommended for various unanswered questions of facts and ethics. Higher standards for local affiliates, stronger voluntary agency leadership, increased participation in organized planning, and better reporting of programs and accomplishments are also urged.

ADELSON, J., "The Teacher as a Model." *Amer. Scholar*, XXX (3, Summer '61), 383-406. How and why the student accepts teachers as models. The several types observed. The teacher as a shaman, as a priest, as a mystic healer. How students avoid a model, and how some use the teacher as an anti-model.

ALBERONI, F., "Le Motivazioni del Consumatore." *R. Intl. di Scienze Sociali*. LXIX (4, Jul.-Aug. '61), 293-305. The motivations of consumers are treated with heavy reliance upon American sources, but yet with a number of fine touches that lend balance and integration to the presentation.

AMERICAN PSYCHOPATHOLOGICAL ASSOCIATION, *Comparative Epidemiology of the Mental Disorders; proceedings of the 49th annual meeting, New York City, Feb. 1959*. P. H. Hoch and Joseph Zubin, eds. New York: Grune & Stratton, 1961, 290 pp. \$9.75. Bibliography; Illustrated.

ANDERSON, N. A., "Scales and Statistics: Parametrics and Non-parametrics." *Psych. Bull.*, LVIII (4, Jul. '61), 305-16. Compares two tests on significance level, power, and versatility.

ARNHEIM, R., "Perceptual Analysis of a Cosmological Symbol." *J. of Aesthetic and Art Criticism*, XIX (4, Summer '61), 389-99. The tracing of a famous taoistic symbol through different cultures and times, with certain related meanings, and speculations upon the origin of seemingly universal aesthetics ideas and principles.

ASHEIM, L. E., ed. *Persistent Issues in American Librarianship*. Chicago: U. of Chicago Graduate Library School, 1961, 114 pp., \$3.75. Addresses, essays and lectures by B. R. Berelson and others. Originally published in *Library Q.*, Jan. '61. Bibliography.

AUSTIN, D., "Elections in an African Rural Area." *Africa*, XXI (Jan. '61), 1-18. Asks what actually happened in election campaigns in two northern Ghanaian constituencies in the 1954-56 general elections. Active political competition, although organization of parties was elementary. Factor in winning candidates included chiefly support, though not necessarily; and money. Religion and women were of little importance. In general, "the candidates knew the national issues, the electorate knew—and knew intimately—the candidates. The idea of elections as a struggle for power between rival groups was well understood. Admittedly, the contest was fought within a local framework of references, with quarrels between chiefdoms and lineages given a fresh look and new vigor from the party conflicts."

BANDURA, A., "Psychotherapy as a Learning Process." *Psych. Bull.*, LVIII (2, Mar. '61), 143-59. Counterconditioning, extinction, discrimination learning, methods of reward, punishment, social imitation, are some of the influences in psychotherapy discussed in regard to changing patient behavior.

BARBU, Z. *Problems of Historical Psychology*. New York: Grove Press, 1961, 222 pp. \$1.95. Inter-disciplinary approach to relationship between national character and history, especially in ancient Greece and Elizabethan England.

BARCUS, F. E., "A Content Analysis of Trends in Sunday Comics, 1900-1959." *Journalism Q.*, Spring '61, 171-80. Changes of the past fifty years have included increased attention to action and adventure, development of more serial material, and cycles related to events of the time such as war themes; domestic situations are still the stock-in-trade.

BESHIR, M. O., "The Gezira Scheme: An Experiment in Socio-Economic Development." *Civilisations*, XI (1, '61), 63-67. Brief descriptions of a unique example of partnership and cooperation between state ownership and private enterprise. The scheme deals with a great cotton-growing project.

BIRABEN, J. N., "Évolution récente de la fécondité des mariages dans les pays occidentaux." *Population*, XVI (2, Jan.-Mar. '61), 49-70. A critique of older methodology of the study of fecundity and a description and presentation of new methods, particularly the methods of "probabilities of increases."

BUEM, A. W. *Television in the Public Interest*. New York: Hastings House, 1961, 192 pp., \$6.95. How the non-professional can utilize TV for public service projects. Includes a description of the organization of a typical local TV station and an examination of major problems.

BOVARD, E. W., "A Note on the Threshold for Emotional Stress." *Psych. R.*, LVIII (2, May '61), 216-18. Relates chemical changes in stress to the beginnings of the stress, and the likelihood of a reaction sometimes being provoked by previous stresses. Family, military, therapeutic and other situations are speculated upon.

BREDEMEIER, H. C. and J. TOBY. *Social Problems in America: Costs and Casualties in an Acquisitive Society*. New York: John Wiley & Sons, 1960, 510 pp., \$6.75. A search for the dynamics in American society; ties together such different problems as prostitution, delinquency, white collar crime, addiction, bad advertising, government corruption, monopolistic exploitation and so on. The answer is that the acquisitive nature of the society is responsible. A number of vivid journalistic accounts showing the problem of the individual in the society.

BRICKMAN, W. W., ed. *John Dewey: Master Educator*. New York: Society for the Advancement of Education, 1961, 410 pp. \$8.00. This second edition was enlarged to include chapters covering the influences on Dewey in Chicago in the 1880's and his administrative relationships at the U. of Chicago until 1904.

BRINTON, J. E. and L. N. MCKOWN, "Effects of Newspaper Reading on Knowledge and Attitude." *Journalism Q.*, Spring '61, 187-95. Newspaper subscribers were found to differ significantly from non-subscribers in knowledge and attitudes regarding fluoridation of water. Exposure doesn't seem to have much effect on knowledge and attitude. Also exposure had an effect on uninterested people as well as on those interested in the issue.

BRONFENBRENNER, M., "Some Lessons of Japan's Economic Development, 1835-1938." *Pacific Affairs*. XXXIV (1, Spring '61), 7-27. For various reasons elaborated by the author, "the development of capitalism in Japan three centuries ago appears largely irrelevant to Asia today—almost as irrelevant as the development of capitalism in Britain on the opposite side of the globe two centuries earlier." The case of Japan is unlikely to be influential unless the developed world (including Japan herself) returns to something like free-trade, including acceptance of low-wage competition, or the weaknesses of Communist development become as apparent to dazzled Asian eyes as they are to critical Westerners'.

BUNGE, M., "Kinds and Criteria of Scientific Laws." *Philos. of Sci.*, XXVIII (3, Jul. '61), 260-81. The classification of different types of laws from the standpoint of scope, generality, etc. A useful antidote to the belief that "all propositions are equal."

BUTTIN, P., "The Replacement of French Staff by Moroccan Staff in Morocco." *Civilisations*, XI ('61), 61-2. A close study of the transition in ethnic composition of the bureaucracy of Morocco. As in other parts of the world, the older colonial bureaucracy has not yet been replaced. It will go on for some time conducting its serious business behind the heated disputes of Franco-Moroccan relations.



(See Arnheim)

"Il Centro Studi 'Nord e Sud.'" *Bollettino d. Ric. Soc.* I (2, Mar. '61), 147-52. Description of the organization and work of a well-

known advanced political-economic research institute at Naples, "Nord e Sud."

CERVIN, V. B. and G. P. HENDERSON, "Statistical Theory of Persuasion." *Psych. R.*, LXVIII (3, May '61), 157-66. A method of representing free social interaction in persuasive situations, and bargaining situations, by fiscal formulæ and graphs.

CLARK, A. W. and P. VAN SOMMERS, "Contradictory Demands in Family Relations and Adjustments to School and Home." *Human. Rel.*, XIV (2, '61), 97-111. An experimental group of 20 children and a control group of 20 children were used to discover how the maladjusted at school related to their families. A well-designed field-theory type of study, tracing situational factors such as how they improve adult relations through children to school.

COATS, A. W., "American Scholarship Comes of Age: The Louisiana Purchase Exposition 1904." *J. of the Hist. of Ideas*, XXII (3, Jul.-Aug. '61), 404-17. A description of this attempt to demonstrate the intellectual and international maturity of the United States, showing the different general themes of knowledge and concepts that American scholars had at the time.

"The Use of Computers for Psychological Research." A symposium sponsored by Division 19 of the American Psychological Association, and presented September 6, 1960 in Chicago. Chairman: J. E. Coulson; in *Behavioral Sci.*, VI (#3, July '61), 252-54.

CROCKETT, C., "Ethics, Metaphysics, and Psychoanalysis." *Inquiry*, I (4, Spring '61), 37-52. Some of the moral presuppositions of psychotherapy are pointed out.

CROWNE, D. P. and M. W. STEPHENS, "Self-acceptance and Self-evaluative Behavior: A Critique of Methodology." *Psych. Bull.*, LVIII (2, Mar. '61), 104-21. A summary of a number of studies dealing with the question of valuation of one's self. Past tests and the possibilities of new tests of the concepts are presented.

CROZIER, M., "Human Relations at the Management Level in a Bureaucratic System of Organization." *Human Organization*, XX (2, Summer '61), 51-64. A report of a study of a large-scale multi-plant industrial organization operated by the French state. Isolation, rigidity, and conflict are studied with particular reference to how social controls limit conflict.

DELIMARS, E., "Mentalité des Cadres en U.R.S.S." *Le Contrat Social*, V (3, May-Jun. '61), 159-64. A scorching account of the lack of personal integrity and institutional truth in the Soviet Union, in action and in statistics. The distinction between truth and falsehood is lost in the tissue of Russian and Communist bureaucracy and party leadership.

DELLA PORTA, G., "Problemi e Prospettive di Coesistenza fra Oriente e Occidente." *La Comunità Internazionale*, Part I, XVI (1, Jan. '61), 22-35. Part 2, XVI (2, Apr. '61), 274-302. An extensive study of the problems and prospects of the coexistence between East and West. It concludes that the development of Soviet Russia has not departed much from that of the Western World a century ago; the expansion of Russia and the oriental world before and after the second World War has been notable on a quantitative and qualitative level; except in China, the transformation has occurred in the last five or six years from dogmatism to rational empiricism and a substitution of certain institutional structures with others that harmonize with the transformation of economic, social and cultural structure; an intensification of economic integration in the Eastern World that at the same time tended more to acquire a democratic Western character with an elasticity not imaginable ten years ago. Ideological and economic differences have been augmented between Soviet Russia and China.

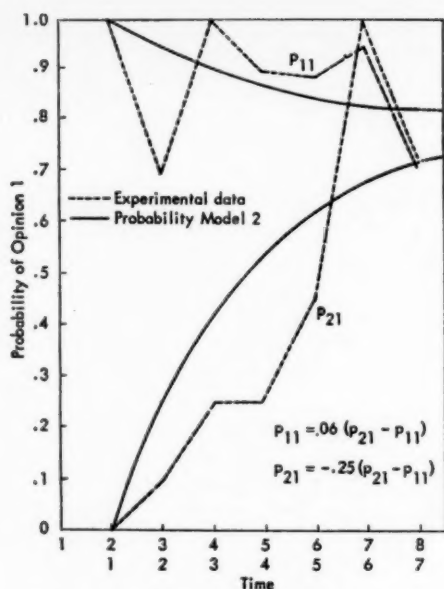


FIG. 2. Course of discussion ending in both subjects changing their opinions, but S_2 yielding more than S_1 (partial persuasion). (See Cervin)

EELLS, R. S. F. *Conceptual Foundations of Business; an outline of major ideas sustaining business enterprise in the Western World*. Homewood, Ill.: Irwin, 1961, 533 pp., \$9.35. A survey of the legal, philosophical and historical bases of the institution of business in Western society.

ENCELS, S., "Financing Scientific Research in Australia." *Science*, CXXXIV (3474, Jul. '61), 260-66. Federal funds and research agencies play a dominant role in the national research effort. The total effort amounts to .6% of GNP as compared with 2% for U.S., aggregating private and public expenditures for research in 1958-59.

ENNIS, P. H., "The Social Structure of Communication Systems: A Theoretical Proposal." *Studies in Public Communication*, #3 (Summer '61), 120-144. A forceful and persuasive argument for abandoning the individual-directed focus of communications research and favor research and ultimately presumably media output that considers audience systems as social groups. "... by considering audience systems as social groups, we are sensitized to the internal structure of the audience forms. This structuring includes not only the role relationships, producer, distributor, critic, and audience, but also functional differentiations within the audience itself. Moreover, delineation of an audience system's structural characteristics enhances the possibility of understanding its social processes."

ERON, L. C. and L. O. WALDER, "Test Burning: II." *Amer. Psych.*, XVI (5, May '61), 237-44. A report on public reaction to a community-wide psychological research program in a small New York State community, with a favorable resolution. Proposes ultimately a handbook detailing pitfalls and sensitivities along with rules for dealing with a community.

Evolution and Man's Progress, *Daedalus*, XC (3, Summer '61). The issue is completely devoted to matters of social policy in connection with evolution. Considering that most scientific estimates maintain that very little can be done about controlling man's evolution, some of the discussion seems rather useless. B. F. Skinner, the behavioral psychologist, writes on the design

of cultures, and proceeds with his typical assuredness. Muller's article on our genetic heritage ranges from a demand for controls to a horror of them. The whole issue amounts to a rather cozy round table discussion.

EYSENCK, J. J., "Psychoanalysis—Myth or Science?" *Inquiry*, I (4, Spring '61), 1-15. Concludes that psychoanalysis and its associated theories are not a science but a myth, to which adherence is based on emotion and prejudices rather than on fact and reason.

FALKENER, E. *Games Ancient and Oriental, and How to Play Them, being the games of the ancient Egyptians, the hieragamme of the Greeks, the ludus latruncolorum of the Romans, and the oriental games of chess, draughts, backgammon, and magic squares*. New York: Dover, 1961, 366 pp. \$1.85. Unabridged and corrected republication of a work first published in 1892.

FARRELL, B. A., "Can Psychoanalysis Be Refuted?" *Inquiry*, I (4, Spring '61), 16-36. Considers the main branches of Freudian theory, instincts, development, psychic structure, mental defense, and symptoms of formation. Freud gave a provisional, although remarkable story. It is up to analysts and workers in cognate fields to apply scientific methods and test the Freudian narrative.

FERRAROTTI, F., "La Ricerca Sociale e l'Industria in Europa." *Bolletino d. Ric. Soc.*, I (2, Mar. '61), 184-208. The former director of research of the European Agency for Productivity, now a parliamentary member, presents a general panorama of industrial and social research in Europe.

FICHTER, J. H. *Religion as an Occupation; a study in the sociology of professions*. Notre Dame, Ind.: U. of Notre Dame Press, 1961, 295 pp., \$6.50. The Church as an employer. Religious professionals are subjected to a sociological analysis.

FLAGLE, C. D., W. H. HUGGINS and R. H. ROY, eds. *Operations Research and System Engineering*. Baltimore: Johns Hopkins Press, 1960, 889 pp. \$14.50. A large collection of materials, on so many subjects, techniques, and areas, that the term operations research becomes something of a synonym for applied practical behavioral science.

FLORENCE, P. S. *Ownership, Control and Success of Large Companies; an analysis of English industrial structure and policy, 1936-1951*. Chicago: Quadrangle Books, 1961, 279 pp., \$12.50. The records and policies of 1,700 English joint stock companies are analyzed.

FRASER, T. M., Jr., "Barpali Village Service: A Quaker Experiment in Community Development." *J. of Human Rel.*, IX (3, Spring '61), 285-99. A project staff and community cooperators "have realized the importance of proper scientific analysis and prediction, however imperfect, in their efforts to alter the habits and customs of the Indian villager." Description of a humanitarian effort in a backward rural village.

GIBB, C., "Creative Personality." *Australian J. of Pol. and Hist.*, VII (1, May '61), 41-59. A clear definition of creativity followed by some trenchant paragraphs on the subject of the unconscious, preparation, incubation, illumination, the characteristics of creative personality, the meaning of IQ, credulity, independence, tolerance of ambiguity, originality, drive. Leisure, environmental stimulation, support and the cultural matrix are necessary. The interaction effects in creativity are reminiscent of those of leadership. "Creativity represents a delicate and sensitive balance between a thorough grasp of knowledge known to date and a refusal to be bound by what is accepted as known." Universities are too involved with administration, internal politics, and salaries to provide an appropriate atmosphere for innovation.

- GILB, C. L., "Should We Learn More About Ourselves?" *Amer. Hist. R.*, LXVI (4, Jul. '61), 987-93. Various arguments in favor of professional and personal role-analysis among historians are presented. Factual information on the historian's social environment, various psychological tests, studies of research libraries and who supports them, and the public image of historians are needed because they influence his studies.
- GUZZARDI, W. Jr., "What the Doctor Can't Order—But You Can." *Fortune*, LXIV (2, Aug. '61), 97-105. The fields of social medicine, and the roles of individuals and communities in building up the science of medicine and research in medicine, are treated.
- HALPERIN, S. W. *Some 20th-Century Historians: essays on eminent Europeans*. Chicago: U. of Chicago Press, 1961, 298 pp. Consists of a group of students of Prof. Bernadotte Schmitt contributing biographies of eminent European historians. Particularly to be recommended is J. L. Cate's work on Henri Pirenne. Lives and works are integrated in the essays.
- HAMLIN, D. W. *Sensation and Perception; a history of the philosophy of perception*. New York: Humanities Press, 1961, 210 pp., \$5.00. Historical viewpoints from the classical Greek philosophers to 20th century phenomenologists.
- HARDISON, O. B., Jr., "Criticism and the Search for Pattern." *Thought*, XXXVI (141, Summer '61), 215-230. Exposition of the types of criticism of literature available, looking for a theory and for studies to be made.
- HARSANYI, J. C., "Theoretical Analysis in Social Science and the Model of Rational Behavior." *Australian J. of Pol. and Hist.*, VII (1, May '61), 60-74. Argues that the social sciences have to offer explanations, predictions and policy recommendations. But in order to do this they need a theory consisting of general propositions stating regularities and social structures and/or social processes. Most general theories have been based on rational behavior models, so we need to go beyond this.
- HEBARRE, J.-L., "Les Pays Sous-Développés et la Liberté de l'Information." *Pol. Étrangère*, XXVI (2, 1961), 153-73. Recent U.N. discussions of liberty of information, including material on the under-developed countries, permit one to connect the need of expanding mass information facilities to speed up economic development and the contradictory and self-defeating practices of repressing freedom of information in most of the countries concerned.
- HERBERT, E. W. *The Artist and Social Reform: France and Belgium, 1885-1898*. New Haven: Yale U. Press, 1961, 338 pp., \$5.00. Position, dilemmas, and ideas of artists who were involved in the late 19th century movement to alter the status quo.
- HOMANS, P., "Puritanism Revisited: An Analysis of the Contemporary Screen-Image Western." *Studies in Public Communication*, #3 (Summer '61), 73-84. An essentially objective, imaginative, and detailed account of the typical Western play and movie, without statistical elaboration or, we confess, validation.
- HORRELL, C. W., "The Status of Education for Photojournalism." *Journalism Q.*, Spring '61, 213-220. A survey of reports from 96 schools of journalism and departments showing wide disagreement on goals and a lack of understanding of the field of photojournalism. The curricula, apparatus and methods of study are exhibited.
- HUBER, J. T., *Report Writing in Psychology and Psychiatry*. New York: Harper, 1961, 114 pp., \$3.50. How to collect and organize data; how to outline and write a psychological report.
- HYMAN, R., "On Prior Information and Creativity." *Psych. Reports*, IX (1, Aug. '61), 151-61. A good framing and pilot study of the theoretical problems of the kind of posture in relation to information that results in creativity. A creative stand (rather than a critical, or sheerly fact-gathering posture) results in a more creative product itself, as determined by judges of the work of subjects.
- "L'Istituto di Ricerche Economico-Sociali 'Aldo Valente.'" *Bollettino d. Ric. Soc.*, I (2, Mar. '61), 141-46. An account of the organization and work of an Italian institution for economic and social research.
- JACOB, E., "L'unité et la diversité des peuples selon la Bible." *R. de Psych. des Peuples*, XVI (2, 2nd quarter '61), 118-133. The unity and differences among peoples in the Bible are cited. The New Testament has a strongly positive attitude in which Jesus Christ represents the coming together of those who have been dispersed following the Fall. The Bible itself is less consistent.
- JACQUES, R., "Pour une approche syndicale du Plan." *Esprit*, XXIX (297, Jul-Aug. '61), 16-39. An economic expert on unions studies the problem of the participation of unions in the governing of industry, urges the democratic planning of union participation.
- KANTOROWICZ, E. H., "Gods in Uniform." *Proceedings of Amer. Philos. Society*, CV (4, Aug. 15, '61), 368-393. A survey of the many forms in which gods assumed uniforms in the classical period. Concludes that the uniformed god, as opposed to some merely armed god, is a symbol of its highly authoritative, great power: "it was the *virtus* of the Dioscuri, the *virtus* of Horus, the *virtus* of Asklepius, or of the oriental sun gods which, just as the *virtus* of the emperors, was to be made manifest by the uniform or armor—and finally the *virtus Christi imperatoris* defeating lion and dragon."
- KELLENER, W. *Der Moderne Soziale Konflikt*. Stuttgart: Enke, 1961. 252 pp. DM 24. Sources of modern social conflict are treated in socio-economic areas of modern society.
- KRAUSE, M. S., "The Measurement of Transitory Anxiety." *Psych. R.*, LXVIII (3, May '61), 178-89. A survey of theories on ways of demonstrating the existence and the measurement of fear, etc., in many situations. Types of evidence of transitory anxiety used have been introspective reports, the response to stress, physiological signs, clinical intuition, free molar behavior, and task performance changes, to which the author adds a synthetic criterion indicator.
- LANGER, S. K. *Problems of Art; ten philosophical lectures*. New York: Scribner, 1961, 184 pp., \$1.25. An outstanding philosopher and aesthetician theorizes with an ever-present grasp of realities.
- LEVIN, A. L. *Dispatch and Delay; a field study of judicial administration in Pennsylvania*. Philadelphia: Institute of Legal Research, Law School, U. of Pa., 1961, 426 pp., \$3.00. What happens to individual cases at all stages of civil litigation in seven counties.
- LITTMAN, R. A., "Psychology: The Socially Indifferent Science." *Amer. Psych.*, XVI (5, May '61), 232-36. Psychology is and must be indifferent to the social content, but psychological knowledge will be sought for and applied in social behavior.
- LOWE, C. M., "The Self-Concept: Fact or Artifact?" *Psych. Bull.*, LVIII (4, Jul. '61), 325-36. Does the self have an objective existence in nature? Can it be observed and measured? Or is it an invention for the better study of behavior? It is the latter, ideally a construction combining the self of ego involvement with the self of feeling.
- MCQUITTY, L. L., "Elementary Factor Analysis." *Psych. Reports*, IX (1, Aug. '61), 71-78. Simplified methods of factor analysis requiring only pencil, paper and addition, worked out on an introversion-extroversion correlation matrix.
- MADARIAGA, S., "Toward a Clearer Western Image." *Orbis*, V (2, Summer '61), 139-51. A noted Spanish philosopher urges the Western nations to concert a clearer image of their position as exponents of freedom and unity in the world.

MANN, H. *The Use of Psychodrama in Health Education*. New York: Carlton Press, 1961, 72 pp., \$2.75. Bibliography.

MARTIN, P., "Les Études Sociologiques et Orientalistes en France et aux États-Unis." *L'Afrique et l'Asie*, 2nd quarter '61 (54), 37-45. A comparison of the way sociologists and orientalist in France and the United States go about their work; impressionistic.

MARX, K. *Marx on Economics*, ed. by Robert Freedman. New York: Harcourt, Brace, 1961. 290 pp. \$2.25. Marx's major statements on methodology, economics and ideology; emphasis on his analysis of capitalism.

MEDICAL ALMANAC 1961-62. Compiled by P. S. Nagan. Philadelphia: Saunders, 1961, 528 pp., \$5.00. Compilation of general information, statistics and other data relating to medical care, medical education, medical organizations and literature, incidence of illness and economic aspects of medical practice.

METHVIN, E. H., "Mob Violence and Communist Strategy." *Orbis*, V (2, Summer '61), 166-81. On the tactics of the communists in the use of mobs, something that has been evident in recent years throughout the world and has caused a number of setbacks to American policy.

MILLIKAN, M. F., ed. *The Emerging Nations; their growth and United States policy*. Boston: Little, Brown, 1961, 171 pp. \$2.50. A study by F. M. Bator and others from the Center of International Studies, MIT on underdeveloped areas and social change.

MODEISKI, G., "The Case of South-East Asia." *Intl. Rel.*, II (3, Apr. '61), 143-55. The author compares international relations and area studies and their contribution to the study of South-east Asia. The two approaches are separate and useful. There is a succinct and clear summary.

MUCCHIELLI, R. *Le jeu du monde et le test du village imaginaire: les mécanismes de l'expression dans les techniques dites projectives*. Paris: Presses Universitaires de France, 1960. 346 pp: 25 NF. Report with photographs and diagrams. The work of Lowenfeld and Puhler on projective technique and some of the author's own work. The toy world and village of the mind are the concepts reacted to by the subject.

MURCHISON, C., ed. *History of Psychology in Autobiography*. New York: Russell & Russell, 1961; 3 vols., \$30.00. This history has been previously published by Clark University.

NELSON, H. G. *A Framework for Thought; an attempt at the scientific interpretation of history*. New York: Pageant Press, 1961, 124 pp., \$1.75.

NEMIAH, J. C. *Foundations of Psychopathology*. New York: Oxford U. Press, 1961, 338 pp. \$6.50. An illustration of the relevance of the psychopathology concept in the practice of medicine. Clinical observations. Bibliography.

NERI, P., "La Psicologia Sociale nelle Scuole di Servizio Sociale." *Bolletino d. Ric. Soc.*, I (2, Mar. '61), 153-63. On the teaching of social science in Italy, with particular reference to the use of social psychology in schools of social service.

NETTER, F., "Progrès Technique et Structure des Institutions Sociales." *Droit Social*, XXIV (7-8, Jul. Aug. '61), 432-38. A number of points are made on the adaptation of social reform to the social structure and technical progress. The author is a French general inspector of social security.

NIKITINE, B., "Démocratie en Orient." *L'Afrique et l'Asie*, 2nd quarter '61, (54), 3-15. The last words of a noted scholar on the democratic possibilities of oriental institutions.

ORCUTT, G. H. *Microanalysis of Socioeconomic Systems; a simulation study*. New York: Harper, 1961, 425 pp., \$8.00. Research based on hypothetical models of socio-economic systems. This is the first of a series relating to the work of the Social Systems Research Institute at the U. of Wisconsin.

ORTEGA Y GASSET, J., "The Mission of the Librarian." *Antioch R.*, XXI (2, Summer '61), 133-54. A beautiful address by the late Spanish author pointing to the historical functions of libraries, to the professional rural librarian, to the problem of an avalanche of books.

"Is it too Utopian to imagine in a not too distant future librarians held responsible by society for the regulation of the production of books, in order to avoid the publication of superfluous ones and, on the other hand, to guard against the lack of those demanded by the complex of vital problems in every age? All human tasks begin in a spontaneous and unregulated exercise; but also, when through their own extension they complicate and impinge upon one another, they come to submit to organization. It seems to me the hour has arrived for the collective organization of book production; for the book itself, as a human modality, this organization is a question of life and death.

"And let no one offer me the foolish objection that such an organization would be an attack upon liberty. Liberty has not come upon the face of the earth to wring the neck of common sense. It is precisely because some have wished to employ it in such an enterprise, because they have pretended to make of it the chief instrument of madness, that liberty is having a bad time in the world at present. The collective organization of book production has nothing to do with the subject of liberty, no more nor less than the need which has demanded the regulation of traffic in the great cities of today."

In this address of 1934, Ortega also says: "... the librarian of the future must direct the non-specialized reader through the *selva selvaggia* of books. He will be the doctor and the hygienist of reading. ... to my mind the mission of the librarian ought to be, not as it is today, the simple administration of the things called books, but the adjustment, the setting to right, of that vital function which is the book."

OSGOOD, C. E., E. E. WARE and C. MORRIS, "Analysis of the Connotative Meanings of a Variety of Human Values as Expressed by American College Students." *J. of Abnormal and Soc. Psych.*, LXII, (1, Jan. '61), 62-73. A continuing study of more theoretical and empirical work on ways of life. Now joined with Osgood's semantic differential.

PETRULLO, L. and B. M. BASS, eds. *Leadership and Interpersonal Behavior*. New York: Holt, Rinehart & Winston. 382 pp. \$6.50. A collection of theories of leadership, of articles on small group behavior and leadership, and articles on leadership in large organizations, originally prepared under Navy sponsorship.

PICORS, P. J. W. *Case Method in Human Relations: the incident process*. New York: McGraw-Hill, 1961, 413 pp., \$8.75. Bibl., illus. The use of the authors' Incident Process case method is explained in studying a variety of social situations.

PINCELLI, G., "Bibliografia della Psicologia Sociale (1948-1960)." *Bolletino d. Ric. Soc.*, I (2, Mar. '61), 171-83. A bibliography of social psychology up to 1960.

PONTET, M., "Evolution According to Teilhard de Chardin." *Thought*, XXXVI (141, Summer '61), 167-89. An interpretation of the theory of evolution of a remarkable writer who aimed his work at secular scientists, and argued the unique creation of man.

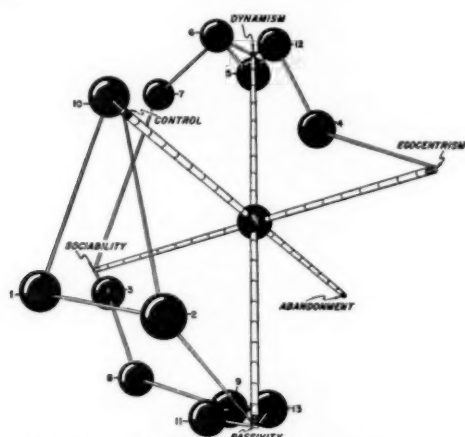
PRESSAT, R., "Vues sur la planification de la main-d'oeuvre en Union Soviétique." *Population*, XVI (2, Apr.-Jun. '61), 235-48. A report by a population expert on the impressions he obtained from visiting Russian demographers. He compares French methods of population prediction with those in the Soviet Union.

PUSYLEWITSCH, T., "Studentenleben in der Sowjetunion." *Osteuropa*, XI (1, Jan. '61), 1-12. An account of student life in the Soviet Union.

QUEMONNE, J.-L., "The New Political Institutions in the French-Speaking Countries of Africa." *Civilisations*, XI (2, '61) 184-86. Description of a number of new and revised political institutions evolving out of independent status.

ROBERTIELLO, R. C. *A Handbook of Emotional Illness and Treatment; a contemporary guide, with case histories*. Larchmont, N.Y.: Argonaut Books, 1961, 159 pp. \$3.95. Simplified explanation, aimed at the layman, of psychiatric disorders and methods of treatment.

"Ricerche di sociologia industriale." *Bolletino d. Ric. Soc.*, I (2, Mar. '61), 105-33. A description of several industrial researches going on in Italy, and of several organizations that are doing the work.



Three dimensional representation of the ways.

WAYS TO LIVE*

- | | |
|-----------------------------|--------------------------|
| 1. preserve the best | 8. simple comforts |
| 2. self-sufficiency | 9. quiet receptivity |
| 3. altruism | 10. self-control |
| 4. sensuous abandonment | 11. contemplation |
| 5. group action | 12. physical interaction |
| 6. progress through realism | 13. humble obedience |
| 7. integration | |

* See Table 1 and *Varieties of Human Value*, pp. 15-19, for more complete description.

(See Osgood et al.)

SCHATTSCHEIDER, E. E. *The Semisovereign People: A Realist's Views of Democracy in America*. New York: Holt, Rinehart & Winston, 1960. 147 pp. "Democracy is a competitive political system in which competing leaders and organizations define the alternatives of public policy in such a way that the public can participate in the decision-making process." This is an operational definition, better suited to realistically describe both the nature and the achievements of modern mass democracy. And what is, to the author, is good.

SCHEFF, T. J., "Control over Policy by Attendants in a Mental Hospital." *J. of Health and Human Behavior*, II (2, Summer '61), 93-105. A shocking, cool study of the sources of extraordinary power of mental hospital attendants by contrast with the formal rulers, the administrators and physicians. Analogies with army, political parties, government organizations are striking. The more mobile administrative and medical personnel, lacking training and interest in leading the staff, often succumb to the aggressive and defensive behavior of the more stable and highly organized formal community of the staff.

SHILS, E., "Professor Mills on the Calling of Sociology." *World Pol.*, XIII (4, Jul. '61), 600-21. A careful analysis and response to a number of criticisms of social science of the book *The Sociological Imagination*. Agrees sociology should be more "macro," but approves little else.

SINGER, M., ed., H. C. HART, M. WEINER and L. RUDOLPH, "Urban Politics in a Plural Society: A Symposium." *J. of Asian Studies*, XX (3, May '61), 265-98. Bombay, Calcutta, and Madras are the foci of the study, and the editor says that "with due allowance for distinctive cultural differences, the underlying processes of urban politics of these cities are probably very similar" to modern western cities.

SNYDER, R. C. and J. S. ROBINSON. *National and International Decision-Making. A Report to the Committee on Research for Peace*. New York: The Institute for International Order. 1961, 228 pp., \$1.00. This work was cited in its mimeographed stage. It deserves additional citation. It is a rare type of presentation of a large number of research proposals theoretically explained and methodologically sophisticated. If all the research projects in international relations in the United States were tossed into file 13 and the students required instead to substitute one of the projects proposed in this work, the science of international politics (and much of social science) would be advanced a generation.

SZASZ, T. S. *The Myth of Mental Illness; foundations of a theory of personal conduct*. New York: Harper, 1961, 337 pp. \$7.50. An attack on the modern concept of mental illness; of psychiatry as a "pseudomedical enterprise"; presents a game-theory of human life.

THAYER, L. O. *Administrative Communication*. Homewood, Ill.: Irwin, 1961. 344 pp. \$6.50. A book for administrators and students, but with sufficiently fresh organization and material to carry it beyond the ordinary. Many a formal social scientist and student of other fields will be surprised at seeing the clean-cut systematic way in which a large number of applied propositions in an important area may be stated.

ULMER, S. S., ed. *Introductory Readings in Political Behavior*. Chicago: Rand McNally, 1961. 465 pp. Theoretically and logically, the best collection of studies of the so-called field of political behavior that has yet appeared. The author divides the materials into an introductory section, psychological bases of political behavior, social bases, systems analysis, groups, decision-making, communications, power, roles, and elites.

WALLACE, E. L. *Management Influence on the Design of Data Processing Systems, a case study*. Boston: Harvard U., 1961, 259 pp. \$3.00. Illustrated paperback on electronic data processing.

WASHBURN, C. *Primitive Drinking; a study of the uses and functions of alcohol in preliterate societies*. New York: College and U. Press, 1961, 282 pp. \$6.00. A cross-cultural study on the uses and effects of alcohol. Involves 16 societies.

WATSON, R. L., "A Brief History of Educational Psychology." *Psych. Record*, XI (3, Jul. '61), 209-42. A succinct history of educational psychology has not hitherto been available. Ending with World War II. Has excellent bibliography.

WITTKOWER, R., "Individualism in Arts and Artists: A Renaissance Problem." *J. of Hist. of Ideas*, XXII (3, Jul.-Sept. '61), 291-302. The Renaissance places the personality of the artist upon a lofty pedestal. Today's artist is practically modelled after the Renaissance image. The study reports of the sundry subjects: "Their approach to work is characterized by frantic activity alternating with creative pauses; their psychological makeup by agonized introspection; their temperamental endowment by a tendency to melancholy; and their social behavior by a craving for solitude and by eccentricities of an endless variety."

Communications Research

Some recent projects at Stanford and Chicago; a possible discrepancy in approach.

Studies in Public Communication

Edward Uliassi is the Editor of the occasional journal *Studies in Public Communication*. Three issues have been published since the first appeared in 1957. Several items in the third, which has just appeared, are annotated in our NEW STUDIES department. Uliassi writes of the philosophy of the venture as follows:

"In communication research, as in other areas of the social sciences, the overconcern with quantitative rigor and statistical refinement has too often produced a false precision stemming from the fact that those variables which cannot be controlled are left undiscussed. Methodological constraints have produced two other consequences: First, the neglect of certain underlying, but subtle and complex, communication processes; and, second, an insidious neglect of the Great Issues concerning the long-range impact of the media and the political and economic context within which they function.

"A comparable neglect of valuable sources of insight regarding the psychological processes governing media impact can be noted, a neglect again stemming from methodological inhibitions. The learning hypotheses derived from research in other than controlled experimental settings can sensitize us to mechanisms at work in reactions to the media. Much of the literature in psychotherapy, for example, is directly relevant to an understanding of the psychological mechanisms governing resistance to and conversion through the mass media. Yet this voluminous literature is relatively neglected in available studies of media impact.

"The functions of assessing long-term, societal impact seem to have been relegated to the humanistically

trained critics of popular culture; to occasional scholars of non-organizational bent whose academic stature is secure enough to allow a more-than-occasional 'incautious aside' in a scholarly journal; to the 'dissent' and to a few discussants at scholarly conventions.

"What seems to be needed in the communication field as in other areas of the social sciences is an increased recognition of the critical importance, for scholarship—and research—of seeking out the correct *questions*. What also seems necessary is a lesser 'intolerance of ambiguity,' encouraging creative and informed insights on problems whose social significance is approximated by their complexity. The problem is one of research strategy—and research priority.

"The emphasis of the established journals in the communication field seems to have restrained potential efforts by scholars in these directions. A forum for exploratory studies and for discussions of new research perspectives, serving as a bridge between the narrowly 'empirical' and the 'dissent' publications, can contribute to the cross-fertilization of communication theory and empirical research."

The Stanford Doctoral Program in Mass Communications Research.

The interdepartmental doctoral program in Mass Communications Research was inaugurated at Stanford University ten years ago. Twelve candidates have fulfilled all the requirements of what is perhaps the most difficult and the most technically committed program in the field. Their course work was supplied by the departments of Psychology, Sociology, and Communication and Journalism. The theory core consisted of learning theory, perception theory, personality and motivational theory, social psy-

chology, social structure, and communication theory. A few study programs included small group behavior theory and decision-making theory. A sequence of courses in methodology and statistics was also a requirement. Some of the candidates also completed a sequence of courses in mathematics and a course in electronic data processing. Stanford, happily, has been well endowed with superior faculty in psychology and statistics.

Eight of the dissertations are theoretical contributions. Two of these applied learning theory. One utilized perception theory (directive state theory). One related to cognitive dissonance theory. One related to attitude change. One was a contribution to the functional theory of social change. One applied small group and communication theory. One applied decision-making theory.

Three of the dissertations developed instruments: (1) a procedure for pretesting acceptance of persuasive material in a crosscultural situation; (2) a standardized test to measure the public's attitude toward its newspaper; and (3) a disguised "pes-simism" test for use in field studies. Another studied news-seeking behavior in a newspaper strike situation.

Four other dissertations now approaching completion relate to stages in the adoption process, learning theory (2), and "inoculation" in the persuasive process.

It is doubtful that the overall quality of the work represented in the twelve dissertations can be matched by any university. The level of technical ability is high and the meaning of the studies clear. Obviously first-rate candidates were recruited but also it is plain that the program has purpose, plan, and integrity.

N.Y.U. Post-Ph.D. psych. program

New York University has set up a post-doctoral program in psychology. Dr. James M. Hester, dean of the Graduate School of Arts and Science, announced that the program would consist of a clinical and modernization courses. Dr. Bernard N. Kalinkowitz, coordinator of graduate training in clinical psychology, was named acting director. The clinical program will consist of a clinic and a twelve-course psychotherapy curriculum over three years. It will be open only to persons who have had two years of supervised experience and who have Ph. D's in clinical psychology from an institution accredited by the American Psychological Association.

U.S. vs U.S.S.R. foreign student aid

American colleges and universities provide more attention and services to foreign students than do similar institutions in any other country, reports Homer Higbee, of Michigan State U., who has conducted the first comprehensive nationwide study of foreign students advising in the U.S. "While great effort is being expended in behalf of foreign students in the Soviet-bloc nations, the information available indicates that it nowhere approaches what is being done in the U.S." The Soviet Union has created special facilities and even special institutions for foreign students, he pointed out, but noted there were only some 9,000 foreign students in Russia compared with 44,536 in the U.S. during the 1960 academic year. Higbee emphasized that although foreign student programs in America are doing a great deal, too little knowledge of the English language and insufficient funds are major problems facing foreign students. The student from abroad is viewed with mixed feelings by American institutions, he noted. Some schools lionize foreign students, some accept them routinely while others accept them with reservation.

Harvard plans Behavioral Sciences Building

Several social sciences will be housed in a tall new Behavioral Sciences Building at Harvard University. Construction is to begin in Spring, 1962. The 14-story building

will provide office space, laboratories, classrooms, libraries, shops, animal quarters, and computer facilities for the teaching departments and research labs of Psychology and of Social Relations, including the Psycho-Acoustic Laboratory, the Center for the Study of Personality and the Center for Cognitive Studies.

The \$5.5 million structure, designed by Minoru Yamasaki and Associates of Detroit, will rise at the corner of Kirkland Street and Divinity Ave., a site now occupied by the University Printing Office. The new building will be constructed largely of pre-cast concrete panels, set between slender concrete columns, which will be poured in place. The structure will rise above a courtyard with pools and fountains. Social Relations, the largest Department to move into the new building, includes the fields of sociology, social anthropology, social psychology, and clinical psychology. The new Social Relations Lab, like the present one, will have a special room for observing how people relate to each other in small informal groups. The observation section will include a gallery large enough to accommodate a watching class of 20-25 students.

The Social Relations Lab plans to section off one floor of the new building into small suites for research "families" -- typically, five or six graduate students and post-doctoral fellows working with a senior investigator on similar problems. The Department has found this kind of intimate setting one of the best for informal teaching and research apprenticeship.

Prejudice measurement, juvenile delinquency, cultural change in a Mexican-Indian village, and the differences between families of different ethnic backgrounds are some of the current Department research projects which will have new facilities when the Behavioral Sciences Building is completed.

The Center for Research in Personality, a branch of the Laboratory of Social Relations under David McClelland, has been studying the will to achieve in children and adults. The Center seeks to bring together representatives from many disciplines.

THE AMERICAN INDIAN CHICAGO CONFERENCE

One night in early June of this year, an urgent message went across the country: "To All American Indians," it read, "the 'termination policy' is dead; Secretary Udall and Assistant Secretary Carver have said so very clearly. Nothing more should happen in Indian affairs without full Indian understanding and consent! The new administration in Washington . . . have to work out a new Indian Affairs policy. There is no Indian Affairs policy now. Therefore right now is a rare opportunity for Indians to express themselves, instead of having somebody else speak for them. This is why I have tried hard to make this national conference possible at this time."

So, 185 years after the Declaration of Independence and 85 years after Custer's Last Stand, began a pronouncement from headquarters of the American Indian Chicago Conference. A publicity release of the University reported shortly thereafter, "The vast enterprise was conceived by Sol Tax, professor of anthropology at the University of Chicago, who acted as co-ordinator of arrangements." Declared Professor Tax, "My job as Coordinator is almost finished . . . It is now plain to see that this nationwide Conference of American Indians is a major event in the history of our country."

Within two weeks, 460 Indians from 90 tribes descended upon the Midway and with the help of the University of Chicago (\$10,000), the Emil Scharzhaupt Foundation (\$10,000) and the Wenner-Gren Foundation (\$5,000) proclaimed an Indian creed and a set of legislative proposals. They began with a Calumet peace pipe ceremony and dance (not to be confused with the present-day Calumet City dance), and a Welcome Feast at the University's stadium, Stagg Field, where whole steers were roasted over open-pit fires. They viewed a ball game at Comiskey Field and held native religious cere-

monies at Stagg Field well into the night of June 17, with a Pow-Wow and Dance Contest on the next afternoon.

A drafting committee of 15 Indians working at the U. of Chicago had met in April and issued a preamble and preliminary statement. Prior to the Conference, Professor Tax explained the Indian pattern of slow, full and complete deliberation: "Indian practice often requires everyone to be heard on an issue. Majority rule in

NATION-WIDE AMERICAN INDIAN

POW WOW

and
INDIAN DANCE CONTEST

\$500
in prizes

Held at the University of Chicago, Chicago, Illinois

<p>INDIVIDUAL DANCING CONTEST</p> <p>1st Prize \$100 2nd Prize 50 3rd Prize 25 Honorable Mention 10 Honorable Mention 10</p> <p>DANCE GROUPS CONTEST</p> <p>1st Prize \$100 2nd Prize 50 3rd Prize 25</p>	<p>JUNE 18 1961 2 p.m.</p>	<p>BEST AUTHENTIC COSTUME</p> <p>Men</p> <p>1st Prize \$25 2nd Prize 15 3rd Prize 10</p> <p>Women</p> <p>1st Prize \$25 2nd Prize 15 3rd Prize 10</p> <p>Boy's Prize 10 Girl's Prize 10</p>
---	--	--

INDIAN DANCERS ONLY
ALL INDIANS WANTED
NO CONTEST REGISTRATION FEE

The Voice of the American Indian

For further details write: Ways & Means Committee of A.I.C.C., 411 N. LaSalle Street, Chicago 10, Illinois.

many situations is not enough: unanimity must be reached." This was accomplished during the conference, at the conclusion of which a final Declaration of Indian Purpose was released, differing in a few minor respects from the drafting committee's statement.

Reporting again "To All American Indians" shortly after the Conference, as "Co-ordinator," the position which he apparently had resumed after his earlier resignation, Professor Tax quoted cordial, if non-committal letters, from the Secretary of the Interior and Senate Constitutional Rights Subcommittee and said "It is a pleasure to report that the Conference went very well. . . . AICC is history; but the fulfillment of all of its aims is still to come."

The aims of the Conference, as contained in the final declaration, are: the "termination policy" of 1953 must be rescinded; this Congressional resolution sought to give all rights as Americans to the Indians and declared: "They should be freed from Federal supervision and control and from all disabilities and limitations specially applicable to Indians." Instead federal officials, with strong individual authority in the different areas, should carry out a broad program of educational, social, and economic development of the Indians. "Economic assistance to Indian tribes and their members," legislative assistance, including the inducements to industries to locate plants . . . near Indian reservations," "technical assistance," "funds to cover the costs of preparing plans and estimates similar in operation to a point IV plan," "land purchase funds," and "adequate revolving loan funds" were urged. Sporadic short-term aid should be avoided. There should be "preference to Indians in Bureau of Indian Affairs employment," and preference in job opportunities and exemption from union requirements in any contracts to work on projects in Indian reservations. Any reservation consumer services such as bakeries should be taken away from private contractors and given to the BIA. Also asked: Federal assistance in purchasing homes; adult education programs; complete federal health, medical, and dental services; "education not only in terms of classroom teaching, but a process which begins at birth and continues through a life span." The federal government must cease "the repeated breaking of solemn treaties;" the Bureau of Internal Revenue must stop collecting income taxes from Indians.

"In short, the Indians ask for assistance, technical and financial, for the time needed, however long that may be, to regain in the America of the space age some measure of the adjustment they enjoyed as the original possessors of their native land."

The unanimity was probably not complete. A lone-wolf Indian from Albuquerque wrote the Secretariat: The American Indian Chicago Conference "is so absurd and preposterous . . . any attempt to revivify and sanction an antiquated and superannuated way of life is to impede his progress toward individual responsibility and self-improvement."

The Indian problem is heavily socio-psychological. It contains many a lesson for America's foreign aid program. Can what has *not* been done with a century of experience at home be done abroad? The anthropologist may well ask himself: Is more state *wampum* our only policy after a century of profound cultural studies? Else others will ask: How much applied anthropology can the country afford?